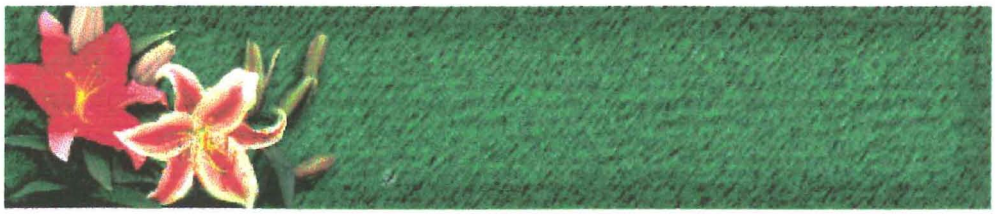
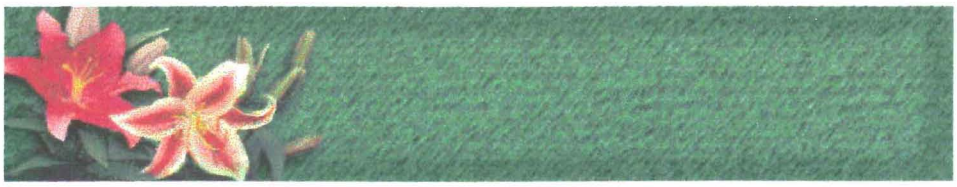
Home Economics vs Food and Textile Technology: Bridging the gap between the old and new secondary school curriculum in Samoan Secondary Schools



In partial requirement for the Masters of Teaching and Learning from Christchurch College of Education

Susan Faoagali

2004



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Glossary of Terms

aiga, 16, 17 ..... extended family

Aoga Faifeau, 19 ..... Pastor school

Apolima, 15 ..... small island of Samoa

aualuma, 16, 20 ..... daughters of the village

aumaga, 16, 20 ..... untitled men of the village

Fa'aSamoa, 13 ..... Samoan culture and way of life

Fale, 17 ..... Samoan house

Faletua ma tausi, 16 ..... wives of the chiefs and orators

fono, 16 ..... meeting of the village chiefs

ia toga, 17 ..... fine mat

Manono, 15 ..... small island of Samoa

Matai, 16 ..... person holding a chiefly title

nu'u, 16 ..... village

Savaii, 15 ..... largest island of Samoa

Siapo, 17 ..... tapa cloth

Tamaiti, 16 ..... children

Tofi, 16 ..... the opportunity to gain a matai title

Chapter 1 Introduction

1.1 General Introduction

The implementation of a new curriculum is complex and involves many different forces one of the most important being the teacher (Hargreaves, 2000; Levin & Riffel, 2000). In this vein the teacher is the focus of this study.

With the writing and renaming of the Home Economics secondary school curriculum in Samoan schools this study first asked questions regarding the teacher's perspectives of the new curriculum and on themselves as teachers. The second phase of the study involved a detailed analysis of the old curriculum document and the newly implemented document.

This chapter explains the research question, outlines the purpose of the study and presents the structure of the thesis report.

1.2 Purpose of the study

As a teacher educator the researcher was interested in the new Food and Textile Technology curriculum and how teachers were implementing it. The purpose of the study is to investigate the teacher's perspectives, ultimately to provide direction for the researchers' own teaching programme at the National University of Samoa (Faculty of Education) reflected in the initial research question;

What are the teacher training implications of the new Food and Textile Technology Curriculum in Samoa?

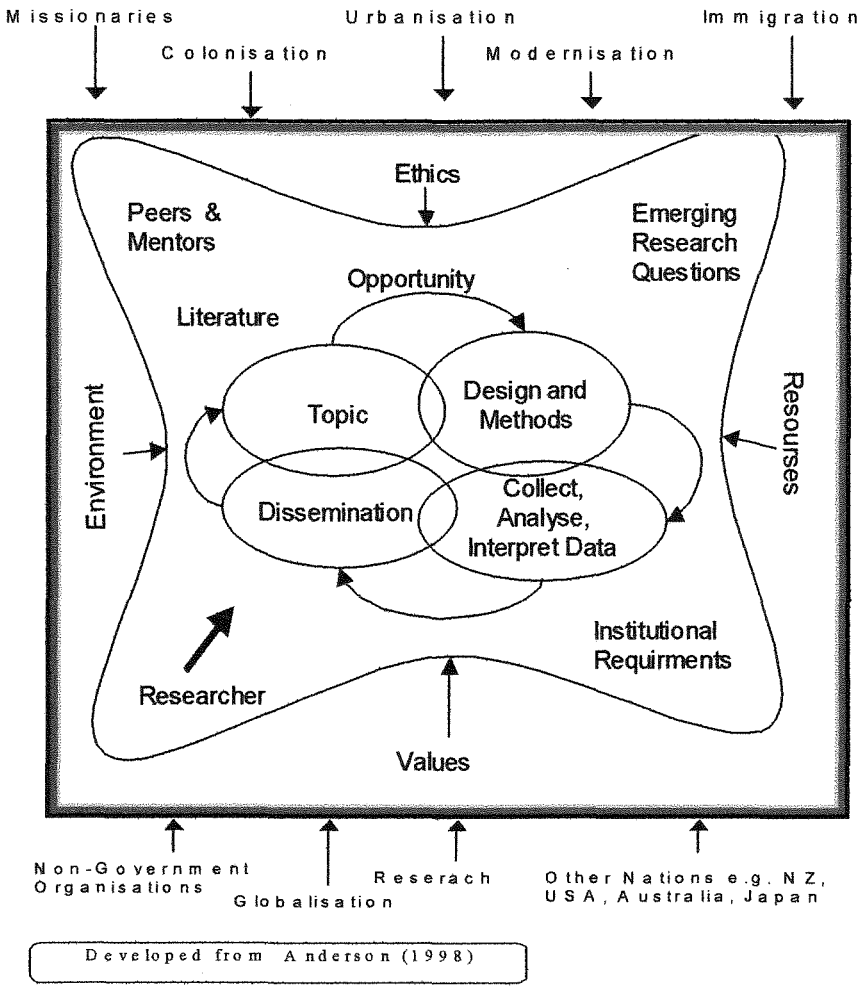
To answer this question two aspects were identified; the old and new curriculum documents and the teachers perspectives. As shown by the two main questions;

- What is the difference between the old Home Economics syllabus and the new Food and Textile Technology Curriculum Statement
- How are teachers dealing with the new Food and Textile Technology Curriculum Statement?

1.3 Overview of study

The research process for this study followed the outline in Figure 1.1, based on Anderson (1998). It was used to inform the procedures and the discussion in this thesis.

Figure 1.1 The Research Process



The research process in the centre is depicted as interlocking parts of a cyclic process. Samoa is depicted as inside the heavy border, and its influences within the country such as resources, ethics, environment and values affecting the research process. Samoa's status as a small island nation and the importance of influences external to the country are represented by the arrows pointing towards the country from such places as other nations (large and small), regional bodies, including influence such as globalisation, urbanisation and modernisation.

Elements that impose direct influence upon research core steps are then shown within the curved line; peers & mentors, research questions, institutional requirements and most importantly—the researcher.

Figure 1 will be used to set the scene for this study. Chapter 2 will focus on the areas outside the four core steps in the centre and how they influence the research process carried out in this study. Chapter 3 concentrates on the four cyclic steps by explaining the methods used in all areas of the research investigation.

1.4 Chapter Themes

Three major differences were discovered between the Home Economics syllabus and Food and Textile Technology curriculum; philosophical, pedagogical and structural. These findings were combined with data collected from the teacher interviews to reveal a gap between the teacher perspectives and the old curriculum document and the new Food and Textile Technology documents.

A river represents this gap. The Home Economics document and teachers perspectives are on one side of the river with the Food and Textile Technology curriculum on the other side.

The three differences; philosophical, pedagogical and structural are the focus of their own chapter, the area of difference or gap are discussed

with each chapter also constructing the sections of the bridge being built across the river.

The last chapter brings all the bridge sections together with the development of a heuristic framework. The last chapter also discusses the design, style, and structure of the bridge.

Concepts and constructs were used throughout the chapters to group codes and categories. As a result there is no chapter dedicated to literature. Literature relevant to the development of the study is cited and discussed throughout the chapters.

An additional feature of this thesis is the prologue. Prior to the theme chapters a prologue is inserted. This segment is a composite narrative introducing Sina, a Home Economics teacher in Samoa. It provides a description of Sina's feelings and concerns and frames several issues that are referred to throughout the thesis.

1.5 The Thesis

Chapter 2	Context Outlines the context of the study including description of Samoan culture and *Fa'aSamoa,* includes a brief review of the history of education in Samoa and the introduction of Home Economics into Samoan schools.
Chapter 3	Methodology Describes the research methodology approaches used in this study. Including factors influencing the research process.
Prologue	Sina Narrative of Sina, a Home Economics teacher. A compilation of the all teachers interviewed.

Chapter 4 What's in a name?

There was more than just a name change with the new curriculum, there is an epistemological gap between the teacher's perspectives and the new curriculum. Construction begins on the bridge with the building of the foundation.

Chapter 5 Action's speak louder than words

A pedagogical gap between the teacher's perspectives and the new curriculum is revealed and involves the different conceptions and use of the curriculum document itself. The Bridge construction continues with the bridge support beams set in place.

Chapter 6 Decision-making and leadership

The third difference between the old curriculum and the new curriculum is the expectations of the teacher and their decision-making ability. Emphasis is placed on leadership skills and the reality facing teachers in the school. The bridge construction is completed with the building of the walkway.

Chapter 7 Bridge blueprint

Concluding chapter brings together the discussions in previous chapters, focus is on the river as the society and its expectations. The bridge structure, design and construction process are discussed within a final framework to produce a blueprint for the bridge. Finishing with recommendations and suggestions for further research.

Chapter 2 Context

2.1 Introduction

This study was carried out in Samoa; consequently there is a need to explain the Samoan way of life and to put into context the *Fa'aSamoa* (Samoan customs and traditions). This chapter outlines the context and sets the scene in which this study took place.

Figure 2.1 Context in the Research Process

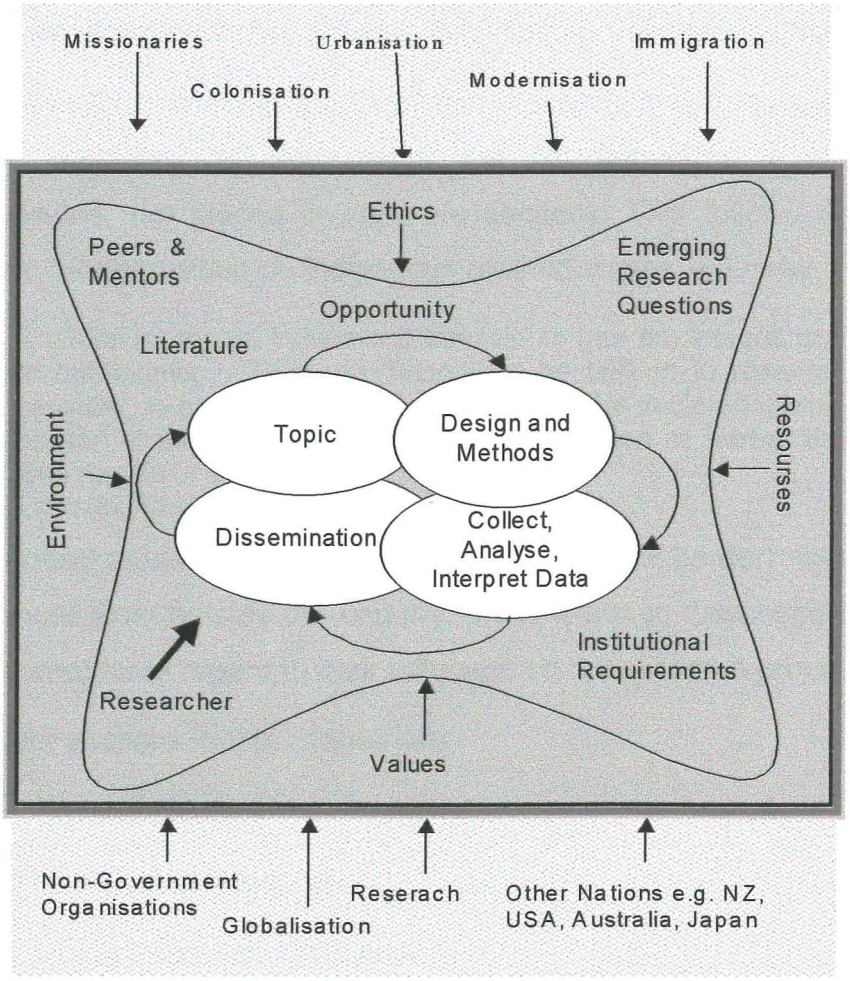


Figure 2.1 illustrates the research process and places the context (shaded areas) areas inside the box border as it relates to the research process (interlocking ovals).

The country Samoa and its influences are shown within box solid borders, it depicts four aspects: resources, ethics, values and environment as indirectly affecting the research process (outside the curved line). These aspects will be discussed through a brief explanation of *Fa'aSamoa* (Samoan way of life/ culture). The elements inside the curved line including peers and mentors, literature, and researcher are also discussed within this chapter.

Fa'aSamoa is an integral part of this research and throughout this thesis reference to *Fa'aSamoa* will be integrated within the discussions, not placed in separate sections. This follows Smith's (Smith, 1999) position on indigenous methodologies, whereby

> "Cultural protocols, values and behaviours (are an) integral part of methodology. They are 'factors' to be built in to research explicitly, to be thought about reflexively, to be declared openly as part of the research design, to be discussed as part of the final results of a study"
> (Smith, 1999:15)

The dotted areas outside Samoa (outside the box border) represent influences from outside the country, these are also discussed briefly in this chapter in regard to their influence on the research process.

The four sections in this chapter are;

2.2 Samoan islands

2.3 Samoa and education

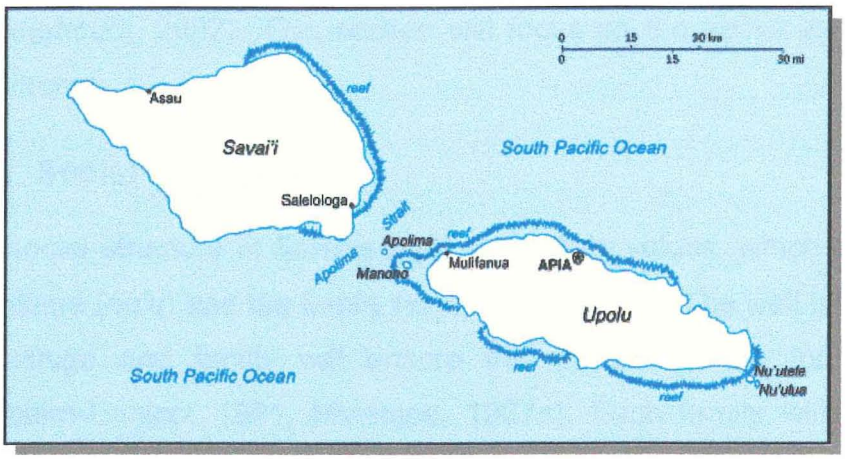
2.4 Home Economics in Samoa

2.5 My position

The chapter begins in the third person as the context is discussed and then in section 2.5 'My Position' the writing becomes first person. Other chapters will return to the third person format.

2.2 Samoa Islands

Picture 2.1 Map of Samoa



Samoa (shown in Picture 2.1) consists of two large islands of Upolu (1114 sq.km) and Savaii (1820sq.km) and two small islands of Apolima and Manono (Meleisea, 1987a)

Samoa is an independent nation with a population of 190,000. Communities of villages are scattered throughout the two main islands, with one city—Apia of 37, 000 population (Department of Statistics, 2002). Samoa is a developing country, with many sectors of the economy dependent on aid from other nations.

As a non-western country Samoa has different beliefs and assumptions to Western countries. Further, Samoa has been exposed to several major episodes throughout its history (some continuing at present) that have shaped its culture and society, such as; arrival of missionaries, colonisation, political independence,

migration, urbanization and modernization. These circumstances and their impact on society and education have been examined and debated by people from the Pacific Region; Thaman (1993; 2002), Koloto (1998), Fairbairn-Dunlop (1991), Coxon (1996); Petana-loka (1995), and Smith (1999) and from other regions around the world; Kenya (Florence, 1998); Africa, (Semali, 2002) and Algeria, (Ghedjghoudj, 2002). This section will focus on the social structure and change.

2.2.1 Social Structure

The social structure of Samoa rests on kinship values, which places the village (*nu'u*) and the family (aiga) at the centre. The well being of the village and family will ensure the welfare of the individual (Fairbairn-Dunlop, 1991, Meleisea, 1987a). Each family within the village is represented by a *matai* (holder of a chiefly title) who has responsibility and control over family members and land. A council of matai called *fono*, consisting of all the titled (*matai*) people of the village, govern the village. The *fono* is the forum by which matters are debated and decisions made, all matai have an equal say in its proceedings and decisions (Meleisea, 1987b).

The Samoan society has been described as stratified (Fairbairn-Dunlop, 1991), however '*tofi*' is the Samoan word for the concept whereby all individuals have the opportunity to gain a matai title, and therefore enter the *fono* where village decisions are made. Individuals in turn belong to groups within the *aiga* (family) and *nuu* (village), such as the *aualuma* (daughters of the village), the *faletua ma tausi* (wives of the chiefs and orators), the *aumaga* (the untitled

men) and the *tamaiti* (children). These groups have specific roles to play in the life of the *nuu* as a whole.

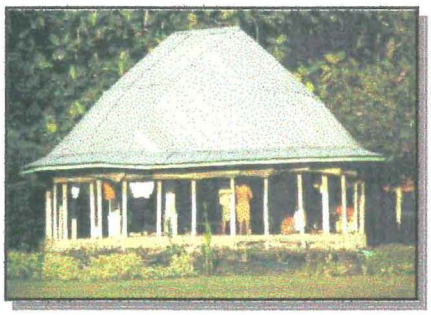
2.2.2 Samoa and Change

> "The changes in the lives of the people today need to be understood in the context of their historical development."
> (Ravuvu, 1988:169).

Samoa is committed to its traditional ways but at the same time is seeking to integrate modern ideas and technologies (Fairbairn-Dunlop, 1991) especially in material objects. For example gift giving ceremonies hold a prominent place in customs and traditions, they acknowledge kinship and family ties including marital links. Gift giving of *siapo* (tapa cloth) has been replaced with the giving of cotton material; of coconut oil replaced with a can of coke; of a whole cooked pig replaced with boxes of canned fish and barrels of beef; of taro replaced with boxes of biscuits; and in some instances the giving of money replaces the giving of *ie toga* (fine mats) (Soo, 2001). A further example is the construction of the *fale,* whereby the sugar cane leaf thatch roof is now replaced with the more convenient and longer lasting corrugated iron as shown in pictures 2.2 and 2.3.

Picture 2.2 Fale with thatched roof

Picture 2.3 Fale with a corrugated iron roof



Beliefs and values of Samoan culture have remained constant, such as the importance of the *aiga* and *nuu*, and the place of love (*alofa*, fa'aaloaloalo), respect, and obedience (Tuia, 1999). Village, district and national government political systems are based on *Fa'aSamoa,* protocols and procedures in all areas of life continue to be governed by the *Fa'aSamoa.*

2.3 Samoa and Education

There has been a constant flux of change in the education system within Samoa during the last century. This section is divided into four sub-sections, the first three relate to periods of external influences; period pre-European arrival, the first European influences, and post independence era.

The last section will consider the education system in relation to the preferred pathway of the student. There is a definite pathway that is preferred and expected by parents and students in Samoa. The significance of this is that Home Economics as a subject was previously not included in the pathway (shown in figure 2.2) but has now been able to enter the pathway with the introduction of Food and Textile Technology as a Senior (PSSC) examination subject.

2.3.1 Pre European Education

Before the arrival of European missionaries to Samoa in the 1830's, education in Samoan society was based on 'oral tradition' (Pasikale, 2002); (Thomas & Postlethwaite, 1984). The focus of life was the family and village, rural, subsistence way of life. Education was principally informal; the principal organization for transmitting this culture was the family and village. There was no institution

specifically for education of the young (Thomas & Postlethwaite, 1984).

Education was in the context of everyday duties such as fishing, hunting, cooking, weaving, house-building, negotiating, recounting history, dancing, and conducting ceremonies (Coxon, 1996; Petana-loka, 1995), (Pasikale, 2002), (Thomas & Postlethwaite, 1984). Within these activities there were formal protocols that were taught using observing, listening, memorizing and then practical application and are similar to other cultures in the Pacific (Ninnes, 1998; Puamau, 2002; Richie & Richie, 1979; Thaman, 1993), and (Harris, 1992).

Maiai (cited in Petana-loka, 1995) described three stages of children's education in this pre-European period: home and extended family environment; initiation into village groups and committees; preparation for a senior position i.e. orator or chief. These practices can still be observed today in adapted form, especially in rural villages (Coxon, 1996; Pasikale, 2002; Petana-loka, 1995).

2.3.2 Missionary and Colonial Education

The arrival of the missionaries in the 1830's saw the introduction of western style education. Pastor Schools (*Aoga Faifeau*) were established very quickly throughout Samoa and reading and writing was introduced to the Samoan people. Missionaries developed the Samoan alphabet and together with Samoans, translated the bible into the Samoan language (Petana-loka, 1995).

Western ideas and subjects continued with the introduction of arithmetic, music, and domestic craft (Petana-loka, 1995). The Pastor school also introduced Home Economics, where the pastor

taught boys carpentry skills and the pastor's wife taught the girls domestic work such as cooking, sewing and housekeeping (Meleisea, 1987b, Tuia, 1999; Tuia, 1999).

Of significant note is that the role of women in the traditional village setting differed to that of women in Western societies. Cooking duties were not carried out solely by women as in Western society, but also the role of the *aumaga* (untitled men) and the *aualuma* (single women of the village). In some cases solely by the *aumaga* (Tuia, 1999). Therefore the introduction of a domestic homemaking subject specifically for girls and excluding boys was not emulating Samoan gender roles but introducing a foreign concept to Samoa.

Under German (1900-1914) and then New Zealand administrations (1914-1961) pastor schools continued to be the main form of education supplemented by government schools. By the late 1950's most villages had primary schools, with a few secondary schools being established in Apia using the New Zealand curriculum and assessment (School Certificate first and University Entrance in the 1960's). Scholarships for further schooling in New Zealand were set up, places were limited and competition for entry into the urban secondary schools was intense (Coxon, 1996; Petana-Ioka, 1995).

2.3.3 Education after Independence

Education, following political independence, in 1962, was distinguished by efforts to Samoanize the system and to provide more relevant examples to Samoa (Department of Education, 1986). Dr Fanaafi Larkin (nee Fanaafi Maiai and presently Prof A. F. Le Tagaloa) was instrumental in this as the Principal of Primary Teachers College (PTC) in 1965, and then as Director of Education

(1965-1974). Samoan language and culture was introduced and the curriculum was made more relevant to Samoa.

Students from primary schools, established much earlier, created a demand for intermediate schools and secondary schools within villages. Villages called for more schools, leading to the establishment of intermediate schools, which further developed into junior high schools throughout Samoa (Coxon, 1996). These junior high schools (years 9-11) provided a three-year programme for the students graduating from the village primary schools.

The 1980's also saw the development of the Samoan secondary school syllabuses (with aid funding from outside agencies). Both core and applied/vocational subjects were developed (Petana-Ioka, 1995). Home Economics was included in the major regional Vocational Curriculum Project, funded by UNDP (Thaman, 1993).

In Apia the major government senior secondary school, Samoa College (years 9-13) continued to provide students for higher education in New Zealand through the scholarship scheme, creating intense competition to enter this school. Missions also established senior secondary schools (years 9-13) providing an alternative for students who were unable to enter Samoa College.

In 1978 the Secondary Teachers College (STC) was set up in response to the huge demand for teachers in the already established junior secondary school (Samoa Teachers College, 1978). By 1989 the New Zealand School Certificate was replaced by the Western Samoa School Certificate exam, and the New Zealand University Entrance was superseded by the Pacific Senior Secondary

Certificate (administrated by the South Pacific Board of Educational Assessment in Fiji).

At present in Samoa there are a range of educational institutions from pre-schools to tertiary, these include mission, government and private institutions (Department of Education, 2003). Table 2.1 shows the number and type of schools in Samoa.

Table 2.1 Schools in Samoa

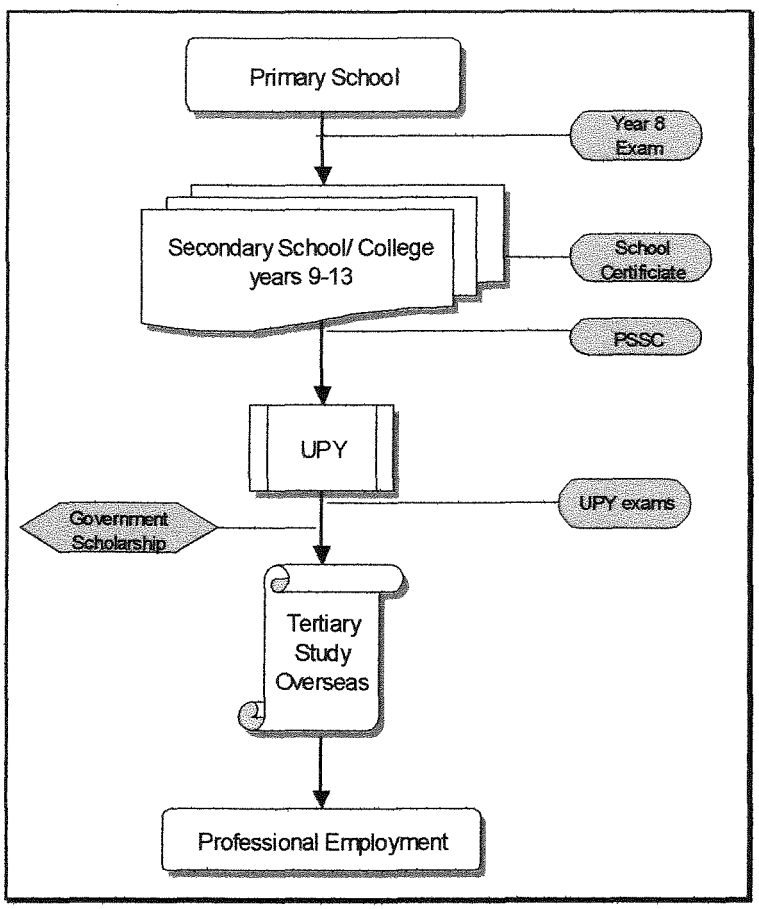
Type of School	Government	Mission	Private
Primary Schools	142	16	2
Secondary school (years 9-12)	21	6	0
Colleges (years 9-13)	4	13	1

2.3.4 Pathway

> "success in school may be seen as a process by which Pacific young people are extricated from their local community into what is seen as a superior and external realm"
> (Thaman, 2002:24)

Figure 2.2 outlines the schooling pathway sought by students and parents in Samoa. This is based on the concept that success in this system leads ultimately to paid employment and therefore to economic improvement and escape from a life of poverty not only for the individual but also for the extended family and village (Afamasaga, 2002; Petana-loka, 1995; Thaman, 2002).

Figure 2.2 Preferred Pathway for Students



As a small developing nation Samoa has limited resources for education; therefore selections are made at several points whereby students are chosen to continue to the next step. Selection is done through examinations, the results of which determine the next step available to the student. These national examinations are shown in Figure 2.2 (shaded areas), they are held at years 8, 12 (School Certificate), 13 (PSSC), and University Preparatory Year (equivalent to 7th Form in New Zealand).

The Pacific Senior School Certificate (PSSC) is the Pacific wide examination for the sixth form level qualification administrated by the Pacific Qualification Centre centred in Fiji.

The notion of success in a schooling system judged on economic outcomes is explained by Thaman (2002) as a dilemma created by

> "our formal education (which) has been based on subject curriculum objectives rather than appropriate behaviour and performance, which were deemed necessary for survival in society and were the aims of indigenous education before schools were introduced" (Thaman, 2002:24)

This reality is similar to other Pacific Island nations such as PNG (Sanders, 1989), Fiji (Ravuvu, 1988), Vanuatu (Niroa, 2002), Solomon Islands (Ninnes, 1998) and Tonga (Thaman, 2002).

The significance of this preferred pathway illustrates firstly why examinations hold such a prominent place in the Samoa education system. And secondly that Home Economics, as a school subject with no obvious pathway to university study was not included in this pathway. The recent and planned reforms underway in Samoa currently have Home Economics/ Food and Textile Technology as a PSSC examination subject.

2.4 Home Economics

Throughout the world the subject of Home Economics has undergone much change during the last century. In this section a brief history of Home Economics in Samoa will be outlined followed by a discussion focusing on the current situation in the light of the recent educational reforms.

2.4.1 History

Home Economics as a subject arrived in Samoa with the missionaries and the introduction of Christianity in the late 1800's, where Domestic Craft was introduced for girls by the pastor schools. The goal was to prepare girls for their futures as homemakers and in particular as wives of future pastors. This is consistent with the concept of the domestic role of women in Western countries around the world, (Fry, 1985; Klein, 1993; Larson, 1990);(Stage & Vincenti, 1997).

The introduction of Home Economics into the Samoa government schools began in the 1970's where the form 3 students from Samoa College were given instruction in the manual subjects (as prescribed by the then New Zealand syllabus) that is; cooking and sewing for the girls and woodwork and metalwork for the boys. Students travelled to the Malifa compound (site of the Education Department) where the practical workshops were set up. Teachers for Home Economics were mainly from New Zealand (Department of Education, 1980).

With the establishment of the junior secondary schools throughout Samoa during the 1970's, Home Economics was included in the curriculum primarily as a vocational subject for girls. However it was not until the training of Home Economics teachers began, in 1984 at the Secondary Teachers College, that junior secondary schools begun setting up practical rooms for the teaching of Home Economics.

The Samoa Secondary Teachers College (STC) played a major role in setting up the practical classes in Home Economics and Industrial Arts in secondary schools around Samoa (per comm.). STC Home

Economics lecturers were personally involved in the purchasing (with aid money), delivering and supervising the set-up of the practical workshops in several schools (per comm.). The Home Economics syllabus was also written (under the auspices of a UNDP vocational curriculum project) in the early 1980's in response to the work by the STC.

As the teachers college changed throughout the years; the STC merged with the Primary Teacher College to be called the Western Samoa Teachers College—WSTC, then to merge with the National University of Samoa becoming the Faculty of Education. This merger meant less direct involvement with the schools, resulting in diminished Home Economics follow-up and monitoring visits.

Schools and school committee's nowadays are left to their own devices in regard to the up-grading and up-keep of their practical rooms and equipment. Some schools are successful in their application to overseas donors for funding. However many school do not apply or are unsuccessful, resulting in poor quality rooms with little or no equipment. The implications include school programmes unable to fulfil the set curriculum.

2.4.2 Reforms

In 1993 New Zealand re-entered the educational scene and funded the Policies Development Project that developed a ten-year plan, Education Polices 1995-2005 (Department of Education, 1995) document. This resulted in the Single-Stream Comprehensive Secondary Project (which is currently on-going). One of the project aims were:

> "to improve the quality of the education offered throughout the system and to redress present inequities between rural/ urban and female/male students" (Coxon, 1996:300)

The Single-Stream Comprehensive Secondary Project affects home Economics in two ways. Firstly the re-rewriting and re-naming of the curriculum and secondly the mandated policy change that required the subject to be taught in secondary schools as well as college.

This has been achieved with two secondary schools being up-graded to college status and the Food and Textile Technology subject (which was previously offered at the school) is now offered in Year 13, PSSC level.

2.5 The Researchers Position

In this section I will position myself within the study in two areas—personally and professionally.

As principle researcher I position myself as an 'insider' and 'outsider'. This holds both difficulties and advantages as outlined by Anae (1998) in her comprehensive study of a group of New Zealand born Samoans in Auckland.

I have 'insider' knowledge because I am living in Samoa, I am privileged, in that I have understanding of *FaaSamoa.* Anae (1998) and Smith (1999) discuss 'inside' and 'native' researchers as people with added responsibilities and expectations. My indigenous framework as a Samoan doing research in Samoa, represent my concern with not only the methodological debates but also with the wider political issues (Anae, 1998; Smith, 1999) such as: For whom is this study worthy and relevant? Who says so? What knowledge will the community gain from this study? What knowledge will the

researcher gain from this study? What are some likely positive outcomes from this study? What are some possible negative outcomes? How can the negative outcomes be eliminated? To whom is the researcher accountable? What processes are in place to support the research, the researched and the researcher? (Smith, 1999:173).

By another perspective there are elements of myself that also represent an outsider. Such as; I was not born in Samoa, I didn't go to school here, and the major factor is that I am not fluent in Samoan language. I am aware that my participants almost certainly viewed me as an outsider, however I am also aware that they would still have certain expectations of me due to my position at the National University of Samoa.

Professionally as a teacher educator at the National University of Samoa, and as a member of the subject writing committee, I entered this study with certain perspectives and with several expectations. As the sole researcher on this study my position and viewpoint is recognized and acknowledged openly.

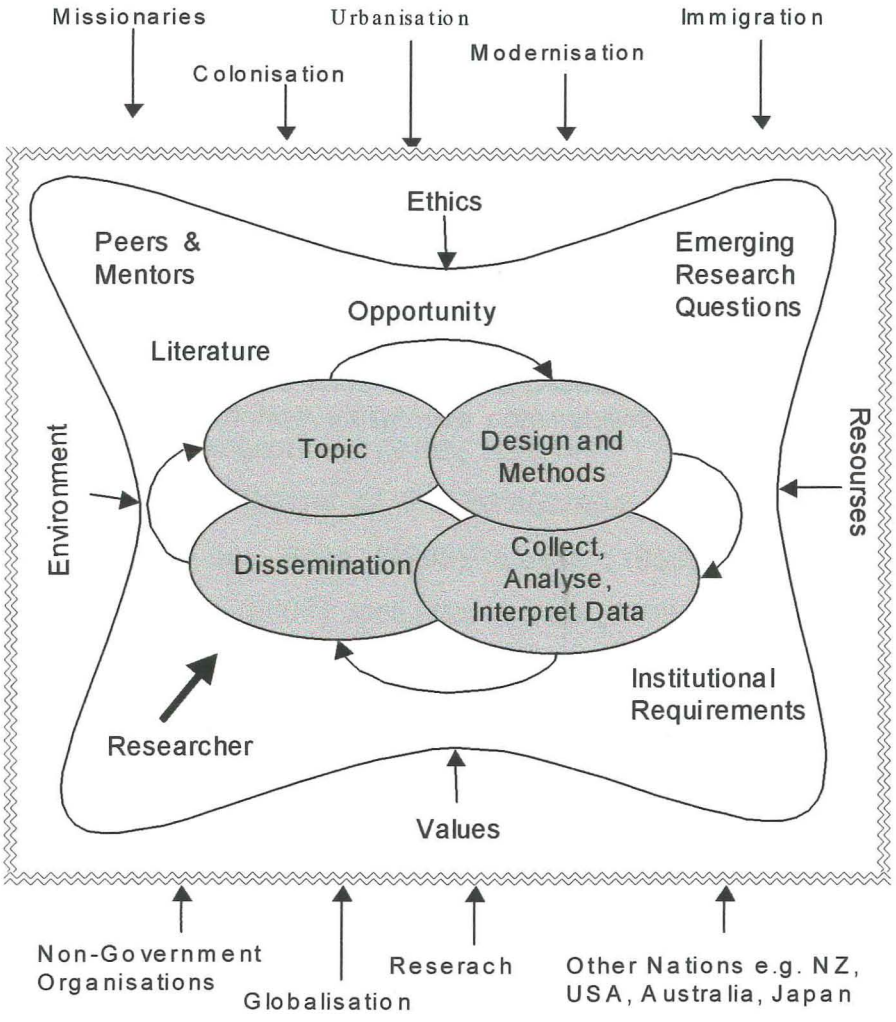
I also understand that I have little influence in what schools offer and how schools are managed. However, I am in a position to affect change in regard to teacher pre-service education within the Food and Textile Studies department of the Faculty of Education. This investigation has revealed the direction forward for our own pre-service teacher education programmes and possibly a guide for others.

Chapter 3 Methodology

3.1 Introduction

This chapter outlines the four core elements of the research mode shown shaded in Figure 3.1.

Figure 3.1 Four Core Elements



For the purposes of this chapter each component is discussed separately;

3.2 Topic

3.3 Design and method

3.4 Collecting, analysing and interpreting the data

3.5 Dissemination

Throughout this chapter reference is made to *Fa'aSamoa* and procedures that are particular and unique to Samoa some of which was outlined in Chapter 2. The researcher embraces the writings of Smith (1999).

> "Indigenous methodologies are often a mix of existing methodological approaches and indigenous practices...reflects the training of indigenous researchers, which continues to be within the academy, and the parameters and common sense understandings of research that govern how indigenous communities and researchers define their activities." (Smith, 1999:143).

For other descriptions of the *Fa'aSamoa* and its influences on methodology see Anae (1998), Coxon (1996); Fairbairn-Dunlop (1991); Ah Kuoi (2000); Moli (1991), Tuia (1999), Lee-Hang (2002).

3.2 Topic

As a teacher educator the researcher was interested in the impact of the new Food and Textile Technology Curriculum on the pre-service training of teachers. The initial research question was;

"What are the teacher training implications of the new Food and Textile Technology Curriculum in Samoa?"

As planning proceeded it became clear that prior to asking about teacher education it was necessary to begin with the actual teacher. McGee (1997) argues that:

> "teachers are the key curriculum decision-makers, their skill transforms inert curriculum statements into living entities in classroom, the success of a curriculum rests upon the teachers' ability to make wise choices and see them through." (McGee, 1997:15)

In this vein two issues were identified:

- What is the difference between the old Home Economics syllabus and the new Food and Textile Technology Curriculum Statement?
- How are teachers dealing with the new Food and Textile Technology Curriculum Statement (implemented 2 years ago)?

3.3 Research Design and Method

The aim of the research was two fold, first to probe the teachers on their feelings and perspectives on the new curriculum and on their practice as a Home Economics/ Food and Textile Technology teacher. Secondly to analyse and compare the old Home Economics Syllabus and the new Food and Textile Technology Curriculum Statement. In short looking at the official discourse surrounding the subject—the official documents, and the reversed unofficial discourse—teachers in the schools.

A qualitative case study design was chosen as the best format for the objectives of this study. Case studies are defined as being an examination of a single event or setting (Bogdan & Biklen, 1998; Stake, 2000). Using such features as, informants interviewed in their natural setting, use of descriptive language, data analysed

inductively, and attention given to finding 'meaning'. In addition the researchers role as the key instrument is acknowledged and discussed (Bogdan & Biklen, 1998; Neuman, 2000; Wiersma, 2000). In that the collecting and interpretation of data is carried out by the researcher and in that way the researcher's own attitudes and viewpoints play a part in the analysis.

3.3.1 Selection of Informants

The initial planning stages included a survey of the population of Home Economics/ Food and Textile Technology teachers, the returns were to be used to make a selection of teachers. However upon returning to Samoa the researcher discovered that only seven months earlier the Japanese Volunteer Home Economics lecturer had carried out a similar survey with Home Economics teachers.

It was felt that another questionnaire survey so soon after this one would not be in the best interests of this study. Permission was obtained from the lecturer to examine the raw data from the survey, and the initial participants were selected from this survey. A copy of one completed survey is attached as appendix 1.

The selection of informants was based on obtaining 'information-rich' (Wiersma, 2000) informants using the researchers' judgment of the specific needs for this study (Cohen, Manion, & Morrison, 2000). Five teachers were selected from the returned questionnaires, with a range of teaching experience. Rural schools were selected from Upolu (the main island) and the other island Savaii, and one Apia urban school. Teachers' length of teaching

experience was used as the main criteria for selection. This was to ensure a combination of novice and experienced teachers. There was some thought that these teachers might have differing perceptions of the old and new curriculum.

During the data collection phase several incidences occurred which changed the make up of the informants, two other processes were used for the selection of more informants, they were 'maximum variation' sampling and 'intermittent selection of subjects' (Wiersma, 2000:287).

Maximum variation sampling is a selection process that includes informants with differences on specified characteristics. Intermittent selection occurred when more informants were chosen as the research was in progress. The Home Economics teaching years profile of the final group is shown in Table 3.1.

Table 3.1 Participant Home Economics Teaching Years

0-5 years	6-10 years	More than 10 years
2 teacher	3 teachers	2 teachers

3.3.2 Ethics

Issues of ethics are concerned with harm, consent, deception, privacy and confidentiality of data (Punch, 1998). These issues were dealt with fully, with informed consent obtained from each participant, and data was kept secure and confidential. The information letters and steps taken to access informants are discussed in a latter section. In addition permission was obtained for this study from the Christchurch College of Education Academic and Ethics Committee (letters attached as Appendix 2).

Kaupapa Maori cultural practices outlined by Smith (1999:120) also

has similarities with the practices undertaken by the researcher during this study:

1. a respect for people
2. the seen face, that is, present yourself to people face to face
3. look, listen....speak
4. share and host people, be generous
5. be cautious
6. do not trample over the *mana* of people
7. don't flaunt your knowledge

Reciprocity holds an important part of *Fa'aSamoa,* as seen in gift giving ceremonies, where both sides of the ceremony gives and receives. By requesting an interview with a teacher the researcher accepted that she was expected to give something in return. This was not mentioned at any time prior to the interview. At the end of the interview a small amount of money ($10), was given to each participant (the exception being the researchers' colleague).

The ethical concern of being seen to pay informants is counted within the cultural expectation of receiving a gift (*mealofa or* Koha—Maori equivalent), representing showing respect to the participant and generosity as discussed by Harrison, MacGibbon and Morton, (2001).

> "The trustworthiness of our research practices is inherent in the politics of what we do at any and every stage of the research process" (Harrison et al., 2001:324).

3.3.3 Access

The main difficulty of carrying out research in Samoa centres on access. Rural schools and some urban schools do not have telephones, access to the schools is through hand delivery of

letters. There were also strict procedures to follow when approaching schools, involving obtaining permission from the Director of Education (now renamed CEO Ministry of Education, Sports and Culture).

The initial letter asking the Director of Education for permission to enter schools was prepared and delivered to the Director together with the information and consent letters for the selected principals and teachers. This greatly assisted the process of access to schools, as once permission was given the Department of Education delivered the study letters to the school accompanied by a letter of support from the Director of Education. Attached as appendices 3 - 6 are the request letter to the Director of Education and his reply, request letters to Principals and information letters to Home Economics/ Food and Textile Technology teachers.

Only one school made contact with the researcher and an appointment was made for an interview. Not having heard from the other teachers it was left for the researcher to travel and arrive at these schools unannounced. This went mostly according to plan, with schools not being disturbed by unexpected visitors.

Unforeseen circumstances in Savaii meant only one out of two interviews was carried out, the ford was flooded and the researcher was unable to travel to the second school.

3.4 Collecting, Analysing and Interpretation

Data was collected using two major techniques—document analysis and individual interview.

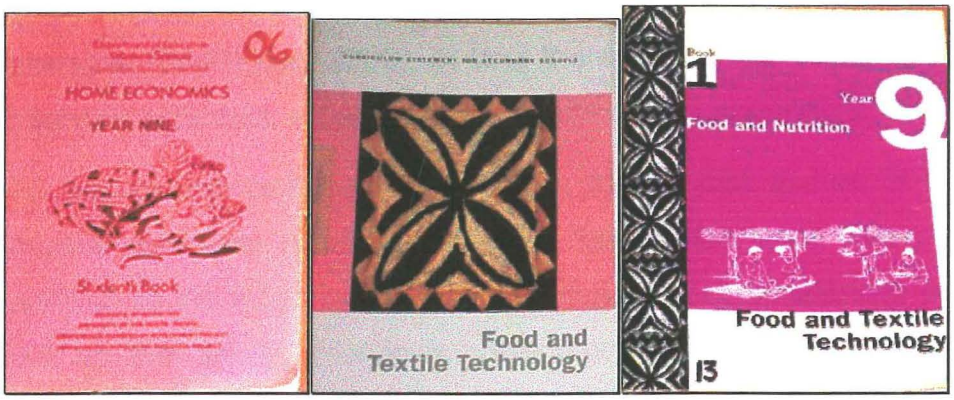
3.4.1 Documents

The Home Economics syllabus used prior to 2001 consisted of three student books, one for each year level—years 9, 10, 11. There is no date or names of writers shown on the books however they are known to be written in the middle 1980's.

The new Food and Textile Technology curriculum statement emerges from the Samoa Secondary School Curriculum Overview Document (Department of Education, 1998). It consists of the Curriculum Statement (Department of Education, 2000) and several student books produced for each level.

The year 9 Home Economics book and the year 9 Food and Textile Technology book 1 together with the Food and Textile Technology Curriculum Statement were analysed, documents are shown in Picture 3.1.

Picture 3.1 Food & Textile Technology Curriculum/Year 9 Student Book/ Home Economics Syllabus



Collecting data from these documents began with four pre-structured areas developed from Strauss and Corbin (Strauss & Corbin, 1998) and Silverman (Silverman, 1993). They were based on four qualitative questions: What does it look like? Why was it

written? What is in it? How was it written? These translated into the four areas of:

1. Technical. What does it look like?
2. Philosophical. Why was it written?
3. Content. What is in the document?
4. Language. How does it say it?

The data collected from the documents in table form is attached as appendix 7.

3.4.2 Interviews

Interviews were semi-structured using an interview schedule as a guide; open-ended questions were used allowing teachers to explore items of interest to them (Bogdan & Biklen, 1998). Key interview questions were formulated before the interview, an informal pilot study of these questions was undertaken prior to the proper interviews, in addition to questions being revised after each interview (Wellington, 2000). In total there were three drafts of the interview schedule, a copy of each is attached as appendix 8.

To ensure that tape transcribes retain the life and texture of the original interview (Wellington, 2000) field notes were taken in addition to the taped audio. Due to unforeseen circumstances two out of the seven interviews were not taped, however these transcripts were written up as soon as possible after the interview and retained as much detail as possible.

Embedded in the qualitative approach used in this study is the bias that may occur. These come from the characteristics, attitude and expectations of the interviewer, the interviewee, and the types of

questions asked (Cohen et al., 2000; Silverman, 1993; Wiersma, 2000). Authenticity was addressed by attempting to minimize these biases, within the interview situation. In that regard, particular attention was given to:

- Being conscious of not using leading questions
- Not consciously asking questions that may lead to support for preconceived thoughts
- Being as clear as possible when asking questions, repeating questions if they were misunderstood or if there was a long silence
- Repeating responses to check understanding from the interviewee view point.

These techniques were particularly important due to the fact that interviews were conducted in English, whereas the first language of all the informants was Samoan. Cohen (Cohen et al., 2000) states a weakness of the semi-structured interviews to be that some important topics may be missed and that the difference in sequencing and wording of questions may affect the responses from the informants. The researcher took care to ensure the order of questions were similar and asked in a similar manner.

3.4.3 Participants

Seven key participants were interviewed; all received an informational letter (appendix 6) and signed a consent form (copy attached as appendix 8). Table 3.2 shows the profile of the participants in this study.

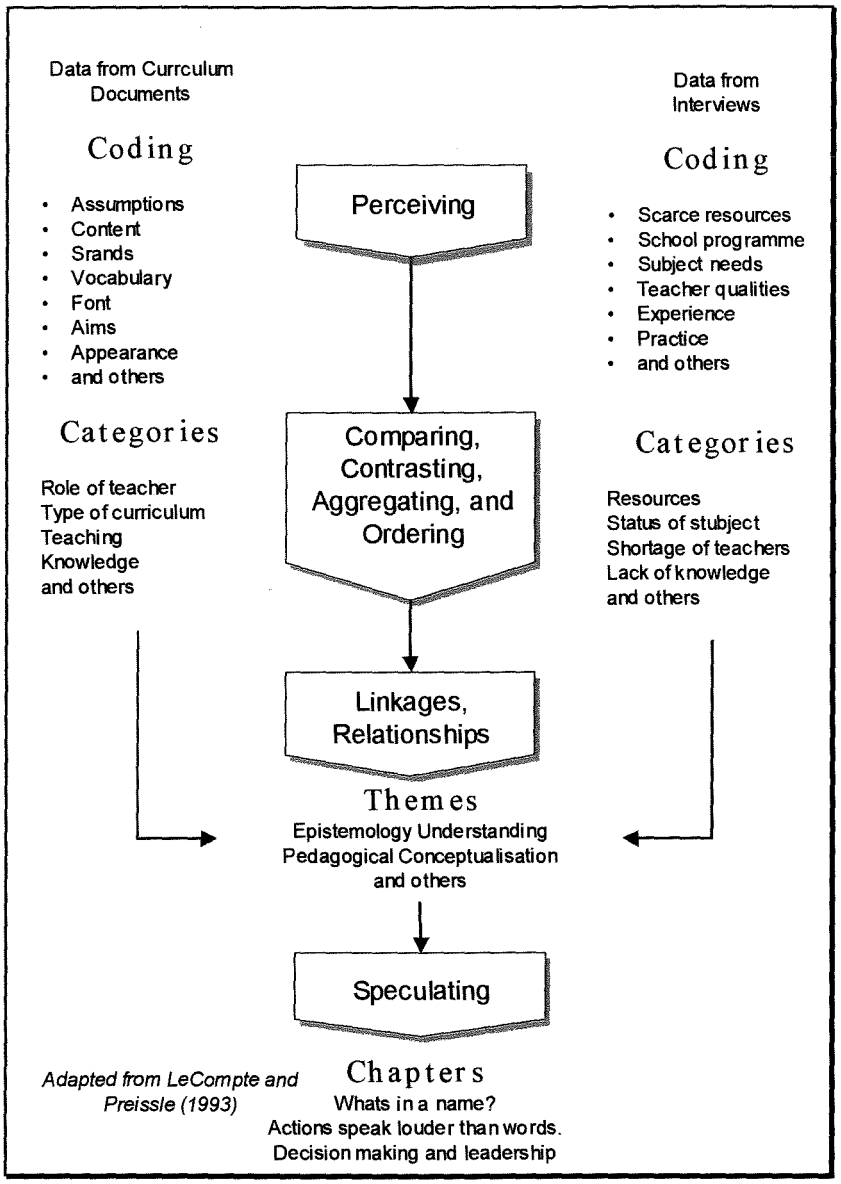
Table 3.2 Participant Profiles

	Age	Years teaching		Where trained	Subjects trained in	Qualifications
		Total	Home Economics			
1.	25-34	9	9	WSTC	HEco/ SocSc	Dip Educ
2.	29	9	5	WSTC	BSt/ Eng	Dip Educ
3.	39	13	13	STC	HEco	Dip Educ
4.	22	2	2	FOE	HEco/Sam	Dip Educ
5.	35-45	20	10	STC, NUS, SPC	Not HEco HEco in Fiji	Certif Educ BEd
6.	35-45	30	13	STC, WSTC, USP	BSt/Math HEco Fd & Text	Cert Educ Dip Educ BSc
7.	25-34	13	8	STC	HEco/BSt	Cert Educ

3.4.4 Analysis of data

The theoretical framework from Le Compte and Presiel (1993) was used to carry out a thematic analysis of the data collected from the curriculum documents and the participant interviews. The process of data analysis is shown in Figure 3.2 The framework also consists of other techniques from Strauss and Corbin (Strauss & Corbin, 1998), Aronson (1994), (Bernard & Ryan) and Silverman (1998).

Figure 3.2 Data Analysis Process for this study



As Figure 3.2 shows categories were developed through ordering, comparing and contrasting, data was then integrated to find common themes and links. These are abstract concepts that evolved from the data, and are the focus of the discussions in the chapters of this thesis.

Authenticity in the analysis stage was addressed by developing

categories common to all informants, open interpretation of data, acknowledgement of own beliefs, returning to participant to discuss findings 'respondent validation' (Silverman, 1993:156). Analyses of interviews also lead to reflection on interview style and techniques, which were developed during the data collection (Wellington, 2000).

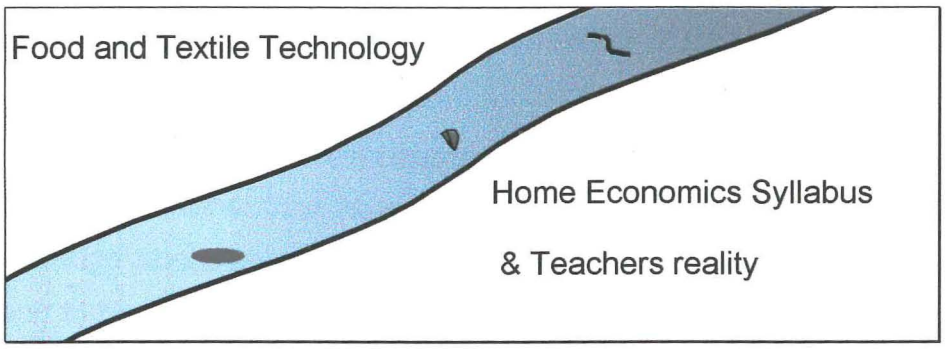
3.4.5 Interpreting and Integrating

Three major areas of difference were discovered between the Food and Textile Technology curriculum assumptions and Home Economics document together with the teacher perspectives;

- Chapter 4 Epistemological understanding.
- Chapter 5 Pedagogical conceptualisation.
- Chapter 6 Decision making and leadership

A river, illustrated in Figure 3.3, represents this gap. To cross the river a bridge is needed. Each chapter discusses the construction of the bridge.

Figure 3.3 The gap



By linking the old curriculum, teacher perspectives and the realities of teachers' to the new curriculum's expectations and assumptions the bridge itself is the change process. Chapter 7 concludes by

discussing the planning, style and structure of the bridge and who will build the bridge.

Concepts and constructs were used throughout the chapters to group codes and categories then to provide a heuristic framework for interpreting the data collected (Le Compte & Preissle, 1993). Consequently literature relevant to the development of the study is cited and discussed throughout the chapters, rather than repartition of separate chapter separated from the interpretations of data. This technique although in the past seen as unorthodox is now being more common in research reports (Lee-Hang, 2002); (Silverman, 1998), (Le Compte & Preissle, 1993).

3.5 Dissemination

The writing of this report was an ongoing process that continued throughout all the phases of the study as illustrated in the research process (Figure 3.1). Writing is essential for the analysis and the interpretation phases (Le Compte & Preissle, 1993); (Strauss & Corbin, 1998); (Silverman, 1993). In addition several drafts were read widely, this was to ensure that comments in relation to Samoa and *Fa'aSamoa* were accurate.

One of the purposes of this research and the reason it was carried out in Samoa rather than New Zealand was that there was need for knowledge about what is occurring in Samoan schools and for the report to be available to those in Samoa.

Questions raised by Smith (Smith, 1999:173) and included in the context chapter are relevant here:

- for whom is this study worthy and relevant? Who says so?
- What knowledge will the community gain from this study?

- What knowledge will the researcher gain from this study?
- What are some likely positive outcomes from this study?
- To whom is the researcher accountable?
- What processes are in place to support the research, the researched and the researcher? (Smith, 1999:173)

During the analysis, writing and dissemination of this report the viewpoint of the researcher is acknowledged, this is outlined at the end of Chapter 2. As a teacher educator the researcher has carried out the research aware of personal biases that may be brought to the analysis. The dissemination of this study is aimed at increasing the knowledge of teachers' perceptions and beliefs, leading ultimately to more research being carried out and a better teacher education programme at the National University of Samoa.

This study focused on the teachers and the curriculum, the differences between the old and new curriculum. It is acknowledged that teacher practice was not observed, findings from this study are based on what the teachers said they did, and what they said their perspectives were. Observing teachers practice and their interaction with student and other teachers would have enhanced this study. In addition return interviews would have also improved the quality of data to be interpreted. These would be recommendations for future research direction.

Prologue—Sina

Sina is a Home Economics teacher, she has been teaching for 9 years. When she first started teaching she taught the subjects English and Social Science. The Home Economics teacher left the school and she was asked to teach that subject. At the beginning she didn't want to teach Home Economics, she liked teaching English and Social Science, but there was no one else willing to teach the subject and the Principal really wanted her to take over the subject. After 5 years teaching the subject Sina enjoys teaching Home Economics and now only teachers Home Economics.

Sina uses the Government Home Economics books for years 9, 10 and 11. Her year 12 class follows the School Certificate prescription. She tries to keep up with the plan so that the students are ready for their exams during the year, especially at the end of the year. Last year she was very pleased when 2 students passed their school certificate exam, and one went into a College school in Apia for Year 13.

To try and up-grade her knowledge of the subject Sina has tried to attend as many Education Department (now Ministry of Education, Sport and Culture) in-service training workshops as she can. This has been hard especially with most courses being run during the term. Because there are no other teachers available to teach her class when she leaves, the principal doesn't usually approve of her going to the workshops. Sina also worries about her seniors and the classes they will miss when she goes to the workshops.

Sina feels quite confident in teaching the foods area of Home Economics with the help she has received from the in-service courses and the information in the new books, however she has little knowledge of the textile area. Over the years she has taught herself how to use the sewing machine and some hand sewing she learnt when she was younger. Her school doesn't have any sewing machines so her textile classes just cover the theory work from the books.

What she sees as the major barrier for her teaching in Home Economics is the lack of resources, especially for the practical classes. Her classes are mainly written work, using the books to copy notes and reading the information, other notes she puts on the black board and they discuss the main points.

There are not many Food practical cooking classes, Sina understands the hardship on her students to bring food ingredients for the practical classes. She only plans a few practical classes a year, about one per term. When the class has practical foods classes the class choose what they would like to make and then they have to divide the food and equipment among themselves as to who will bring what.

In addition it is acknowledged that the food prepared is made available to the principal and teachers of the school. Sina tries to ensure that prepared food is left for the students to eat, but sometimes there is not enough food for both the teachers of the school and for the students, resulting in the students missing out.

Practical classes also cost her money, buying ingredients to assist with the classes, especially the senior students as they prepare for their examinations.

She has been told to change the way she teachers to be more student centred but she likes the way she is teaching and then even when she does try something new, like some of the activities in the new books, the students don't seem to be able to do it and it is just easier for her to write the notes on the board and get the students to copy it and discuss it in class.

Sina likes the new Food and Textile Technology curriculum and especially the new student books, she thinks they are nicely set out and the students like using them. She was a bit confused with the curriculum statement in the beginning, there were no lesson plans, but after the in-service courses, she understands the meanings of the words better and now that the student books are available she is happy to follow the new student books with their units of work.

Her programme really hasn't changed much from before, now she follows what is in the new student books, the activities and information are very helpful, even though she doesn't do all the activities because of the lack of resources.

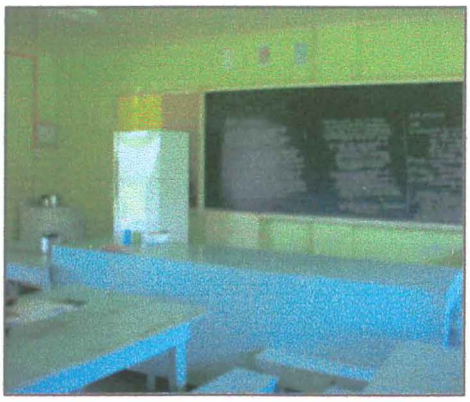
Sina is happy with the change of name from Home Economics to Food and Textile Technology. She could see that the subject in her school was not of a high status, in particular the head teacher tends to counsel the bright students to take the other subjects like business studies. At the same time students with very low marks are directed to do Home Economics. This makes it very hard for her to teach because the students in her class are sometimes very slow

and they don't remember things. She has to go over information many times before they understand it.

Sina hopes that the change in name will begin to change the other people's ideas about food and textiles and hopefully show that the bright students can do it as well and then she might be able to do some other teaching activities in the class and the students will understand.

She also hopes that the Principal and school committee will begin to look at the subject in a different way and give them more money to buy their resources. One good thing about the new curriculum is that the Director of Education has been sending letters to the school about how important the subject is and she has been allowed to go on more workshops to learn about the curriculum. She has learnt that some college schools have started doing Food and Textile Technology at the year 13, PSSC level and that the students are doing really well. She is really pleased with this and hopes one day that her year 12, School Certificate students can do better in their exams.

Picture Prologue-0.1 Home Economics classroom



Chapter 4 What's in a Name?

4.1 Introduction

This chapter will focus on the epistemological assumptions of the Home Economics and Food and Textile Technology documents and of the teachers themselves.

A comparative analysis was carried out on the two sets of curriculum documents and it revealed that there was more than the name changed. It was discovered that the underpinning learning and subject philosophies of the Home Economics syllabus and the Food and Textile Technology curriculum documents are in contrast with each other.

Habermas theory of Human Interest will be used to discuss the different approaches to the Home Economics subject. The three domains of technical, practical and emancipatory (outlined in Table 4.1) will be used as a framework to position the curriculum documents as well as the teacher's perspectives. The data collected from the document analysis places the Home Economics document within the Instrumental/ Technical Domain and the new Food and Textile Technology curriculum positioned within the Practical and Emancipatory domains.

Table 4.1 Habermas Domains of Human Interest Framework

	Technical	Practical	Emancipatory
Kind of Knowledge	Instrumental knowledge based on empirical investigation and governed by technical rules	Oriented towards consensus-seeking, Affirms the inter-dependence of human and environment survival.	Moves towards a freedom, which neither the technical or practical interest allows.
Teaching/ Learning Process	People behave rather than act, social relationships are regarded as being subject to natural laws. Classroom environment should be carefully controlled to transmit the knowledge to the students.	The practical curriculum presents knowledge as resulting from subjective experience, from interaction, argumentation and debate.	An emancipatory curriculum is concerned not only with theorising about what is and what ought to be but also with taking social action, becoming involved with the problems that society must address.
Home Economics	Emphasis on practical skills. Focus on the end product, the outcome, e.g. the sponge cake that meets the pre-set criteria. Skills and scientific orientation, where actions are subject to 'certain rules, norms and standards'. E.g. food science, human development and management.	Programmes are made more meaningful for students, with work relevant to family circumstances. Emphasis on understanding of self and others. Teachers are encouraged to focus on individual student learning processes rather than content.	Three ways Home Economics can be emancipatory; Promote enlightenment Seek to empower students Overall goal must be emancipation of those whom it serves. Students engage society, social issues and social structures by critical reflection, social negotiation and organization of action.
Table compiled from Grundy and Henry (1995).			

Data from the interviews showed teacher perspectives clearly within the Instrumental/ Technical domain. Thus revealing a gap between the intentions of the Food and Textile Technology curriculum writers and the practicing teachers. This gap will be discussed using the metaphor of a river and the resultant building of a bridge to link teachers on one side to the Food and Textile Technology curriculum on the other side.

Collins's (1997) first of five critical challenges will be used to construct the bridge foundation—understanding the concepts and philosophies of the technology education. This is where the teachers own educational philosophies and concepts must be examined and used as the building blocks of the bridge foundation.

The change in underlying beliefs of the document has the potential of impacting greatly on the implementation of the curriculum and the education of teachers (both in-service and pre-service teacher training).

4.2 Document Analysis

A comparative analysis of the Home Economics syllabus and the Food and Textile Technology curriculum document was carried out to address the question; what is the difference between the old and the new curriculum documents.

Data was grouped into several codes and categories; Table 4.2 shows the categories that were identified as being similar in nature between the two documents.

Table 4.2 Similar data across two curriculum documents

Category	Similar Data between Home Economics and Food and Textile Technology Documents
Overall Technical	Both documents of similar size, both stapled.
Title page	Both have a title page with colour, the 2000 books used glossy cardboard
Font/formatting	Both use a variety of fonts, bold print and subheadings, however the 2000 book is more uniform with size and heading format.
Pictures/diagrams	Both books use unframed, labels, shading and speech boxes. Both use diagrams and pictures: both include Samoa relevant pictures, the 2000 books contain a variety of frames
Content Strands/units	Each is divided into stands or units, these titles are similar across the documents
Subheadings	Subheadings from the year 9 2000 food and nutrition book are comparable to the 1970 food and nutrition section content.
Assumptions	Expectation that schools have practical workshops for both textiles and foods.
Vocabulary	Both books use simple, easy to read language The Food and Textile Technology curriculum consists of several documents. The curriculum framework and statement uses a higher level of vocabulary, for teachers, and the pupil's workbook uses the appropriate level of vocabulary. It also included extra material such as glossary of terms, and key word boxes.
Samoan language Assumptions	Both books contain similar number of Samoan language/words All books are written in English

The areas identified in Table 4.2 as similar areas across the two documents can be expressed as concrete or the physical nature of the documents such as; the print, page format, page size and actual content topics.

Table 4.3 presents a different situation where the categories that were considered in contrast with each other across the documents related to the philosophy and underlying learning principles of the Home Economics and Food and Textile Technology subject. These include philosophy, assumptions regarding language, teaching and learning and concepts of knowledge

The 1980's Home Economics syllabus was not explicit in its philosophy or purpose, whereas the Food and Textile Technology curriculum was, including clear statements regarding its aim, purpose and view of the subject.

Table 4.3 Subject philosophies of the two curriculum documents

Category	1980 Home Economics Syllabus	2000 Food and Textile Technology Curriculum
Aim/purpose	To provide content and lesson guides for teachers to follow in the classroom	To "provide a basis for teachers to plan programmes for teaching Food and Textile Technology in secondary schools" (pp1).
Language concepts	Language is in used to convey content material, some parts of the book used simple (English) language, some parts were more complicated (text-book) language.	Explicit link between language and learning with a specific 'strand' named communication. Involving achievement objectives related to the role of language and learning
View of subject	Preparing girls for wife-hood and homemaking skills. Providing students with practical vocational skills.	Not gender specific Gaining problem solving and application sills Become socially aware of choices made and choices available to them
View of knowledge	Knowledge is transferred from teacher and text book to student, through reading, writing and memorising facts.	Knowledge is constructed, building on knowledge, application, of knowledge, problem solving, using the design process.

Table 4.3 Cont'd

Category	1980 Home Economics Syllabus	2000 Food and Textile Technology Curriculum
Teaching and learning assumptions	Passive learning, reading, taking notes and carrying out written activities.	Learning is active, involves interaction between the student, teacher and content
Translation of aims into practice	Teacher centred approach	Student centred approach

The areas of similarity identified in Table 4.2 described material features are seen as important to the documents but do not have the same impact on the use and understanding of the documents as do the categories presented in Table 4.3, which are the fundamental principles of the subject such as philosophy, assumptions regarding language, teaching and learning and concepts of knowledge.

These changes in underlying beliefs of the curriculum document are a major development and have the potential of impacting greatly on the implementation of the curriculum and the education of teachers (both in-service and pre-service teacher training). The different viewpoints of the subject Home Economics and its impact on the implementation of the Food and Textile Technology curriculum will be discussed in the next section.

4.3 What is Home Economics?

> "Home Economics is founded on the purpose of helping individuals and families relate to change."
> Gibson-Quick (1994:1)

Home Economics position as a school subject in Samoan schools has been vulnerable, and in many places around the world has

been absorbed into other subject areas, changed its focus and name or simply deleted as a subject (Haley, Peggram, & Ley, 1993; Kerka, 1996; Smith, 1995). Whereas Home Economics holds to its mission of helping individuals and families relate to change, the subject itself has had to change with the beginning of a new century and increasing changes in society and way of life.

Klein examines the relationship between changing roles and Home Economics throughout the 19th and 20th Century, and shows that the Home Economics curriculum was strongly influenced by the changing meanings of women's role (Klein, 1993). Together with Klein (1993), Larson (1990) and Davis (1993) strongly agree on the importance of keeping the 'family' as the focus of Home Economics. Davis (1993) considers Home Economics as 'applied anthropology' in that "*its applications help the family and society meet the basic human needs of its members and continue a culture from one generation to the next.*" Davis, 1993:27

As a subject Home Economics is a broad and varied subject, there have been many attempts to define Home Economics not always with success (Street, 1996); (Grundy & Henry, 1995); (Haley et al., 1993); (Smith, 1994); and (Vincenti, 1982). Rather than attempt a further definition of the subject, this thesis draws on Habermas's theory of knowledge-constitutive interests (MacIsaac, 1996) to discuss the nature of the knowledge embedded in the subject.

The knowledge-constitutive interests outlined Habermas describe differing approaches to Home Economics. These areas envelop the diverse views of the teaching and learning surrounding the

discipline. It defines three cognitive areas in which human interest generates knowledge; work knowledge, practical knowledge, Emancipatory knowledge. Table 4.1 (repeated below) identifies Home Economics practices that fit into each of the three types of knowledge. This framework will be used to place the Home Economics syllabus and the Food and Textile Technology document, as well as, later in the chapter, position the teachers' perspective of the subject.

Table 4.1 Habermas Domains of Human Interest Framework

	Technical	Practical	Emancipatory
Kind of Knowledge	Instrumental knowledge based on empirical investigation and governed by technical rules	Oriented towards consensus-seeking, Affirms the inter-dependence of human and environment survival.	Moves towards a freedom, which neither the technical or practical interest allows.
Teaching/ Learning Process	People behave rather than act, social relationships are regarded as being subject to natural laws. Classroom environment should be carefully controlled to transmit the knowledge to the students.	The practical curriculum presents knowledge as resulting from subjective experience, from interaction, argumentation and debate.	An emancipatory curriculum is concerned not only with theorising about what is and what ought to be but also with taking social action, becoming involved with the problems that society must address.

Table 4.1 cont'd

	Technical	Practical	Emancipatory
Home Economics	Emphasis on practical skills. Focus on the end product, the outcome, e.g. the sponge cake that meets the pre-set criteria. Skills and scientific orientation, where actions are subject to 'certain rules, norms and standards'. E.g. food science, human development and management.	Programmes are made more meaningful for students, with work relevant to family circumstances. Emphasis on understanding of self and others. Teachers are encouraged to focus on individual student learning processes rather than content.	Three ways Home Economics can be emancipatory; Promote enlightenment Seek to empower students Overall goal must be emancipation of those whom it serves. Students engage society, social issues and social structures by critical reflection, social negotiation and organization of action.
Table compiled from Grundy and Henry (1995).			

Home Economics as seen through the Technical area of human interest focuses on the scientific investigation and rules, classrooms are carefully controlled with emphasis on practical skills. The curriculum presents knowledge as objective and generalisable, exact and reliable, able to be observed and measured, to be validated and transferred from the teacher or textbook to the student.

In contrast Home Economics as seen through the Practical area of human interest is orientated towards individuals and the process of learning. Knowledge is constructed in a social environment with interaction and debate. This curriculum emphasises the importance

of process, activities as an interactive process, in which the teacher and students together determine the curriculum in order to make meaning of the world. Classroom interaction is seen as learning experiences rather than teaching strategies and includes independent or group research, role-playing, cooperative work and field trips.

Further development along this theme is the Emancipatory area of human interest where the dynamic interrelationship of knowledge and power is acknowledged but not controlling it, making clear the way in which human action and perception is constrained by interests in domination. From the resulting conflict emerges a kind of new knowledge, one that is authentic, which is empowering and liberating for all involved. A curriculum informed by Emancipatory interest is similar to the Practical interest domain, however with one important difference which involves teachers and students confronting and questioning the accepted values and norms, participating in rational debate and engaging in critical self-reflection. Praxis is used where it is acknowledged that people do not act upon the social and physical world but interact within those worlds on the basis of human judgement. This framework will be used to position the Home Economics syllabus document and the Food and Textile Technology curriculum document as summarised in Table 4.3.

The Home Economics philosophy and assumptions (column 1 in Table 4.3) with its emphasis on practical skills and knowledge that is observable and exact can be positioned within the Instrumental/Technical domain (column 1 of Table 4.1). In contrast the Food and Textile Technology philosophy and assumptions

(column 2 Table 4.3) can be placed within the Practical and to some degree in the Emancipatory domain of the Table 4.1 framework. Where learning is seen as constructed, involving interaction between all areas of the classroom and teaching learning process.

A brief summary of technology education literature shows that the subject uses a holistic approach, which emphasizes human needs and incorporates collaborative and cooperative strategies in order to meet a need or a challenge (Jones, 1995); (Compton, 1997). The concept of knowledge, which is inherent in technology education, is

> "one in which knowledge is constructed and validated by people, and as such it is a product of the social environment within which these people participate" (Compton, 1997:67).

Collins (1997) agrees with Compton (1997) and places technology within the constructivist/heuristic framework. In regard to the Habermas theory, Technology education is placed firmly in the Practical and Emancipatory interest (column 2 and 3 Table 4.1).

The Table 4.1 framework and the placement of the Home Economics and Food and Textile Technology document within it reveals how the different philosophical viewpoints embedded in the two documents affects all areas of the teaching learning process, from the actual classroom management and teaching lessons through to knowledge assumptions, individual teacher beliefs and types of teacher education. The next section will use the information collected from interviews with teachers to place them within the framework in Table 4.1.

4.4 Teachers

The teachers in this study were asked for their perspectives on the subject Home Economics. Each of the teachers emphasised the practical skills component;

> "well it's a helpful subject, especially for them to learn about soifua maloloina (health and well-being), for the health of their families. And they need to learn how to cook and sew for when they get older and leave school, you see these kids are not very bright you know, and so we need to give them the skills so they can get a job, or to help their families to make money " (Teacher 3)
>
> "this is a good subject to learn especially when they are learning the information about nutrition and health, it was very good for them to have these sorts of skills to help their families" (Teacher 1)
>
> "well it's a nice subject for the students to learn because they learn about things to help them at home. Especially its important they learn facts about cooking and nutrition, and consumer information" (Teacher 4)
>
> "I think this is a very important subject for students to learn and I tell the other teachers that as well, and sometimes the parents. Its good to learn about things like cooking and nutrition " (Teacher 7)

Little mention was made of the process or the interaction between the content and the students emphasizing content and skills are consistent with the Home Economics document philosophy (column 1 in Table 4.3) and place the teachers perspectives within the Instrumental Domain of the Framework in Table 4.1.

Teachers expressed satisfaction with the name change and saw it as placing the old Home Economics at a higher status within the school hierarchy being now called Food and Textile Technology. There were numerous reference made to the low status the subject holds within the school community. This is seen as having an impact on three main areas—resources allocated for the subject,

the types of students directed to the subject and the difficulty in attending official workshops.

However of particular interest was the fact that all teachers (but the two teacher educators) saw no difference between the Home Economics and Food and Textile Technology except for the new name and the new glossy books. They also indicated that they would not be changing the way they taught, their planning or their programme from prior to the new curriculum. The two teacher educators (quoted below but not numbered) did not specify the philosophy of the documents but recognised the difference between the two document as involving planning and use of the document by teachers. This is related to the philosophy and underlying principles of the documents.

> "Before there was no specific curriculum there were books for the teachers and students to follow, they just follow the book through, lesson 1, lesson 2, we didn't integrate. But now the teachers have to plan their own programmes and integrate. It is hard for most of them because most of them are not used to writing units of work and things like that. They are used to just teach the lessons from the book, they didn't have a programme for the year. They need to know how to write units, and write a situation, so that we can work out what is going on, to integrate the areas and the achievement objectives. Also a difference is in the way that you are teaching the subject, the old way of teaching was very strict and it was exam based and teacher centred but this curriculum is child-centred"
>
> "well actually there is quite a lot of difference, there are technical words that are very difficult for the teachers to understand in the beginning, the other difference is the planning that the teachers have to do now. This is a big difference, because before the old book, as you know, had the lesson plans in them, you know the year 9, 10 and 11 books. But now there are only achievement objectives and the teachers have to plan their lessons and now the student

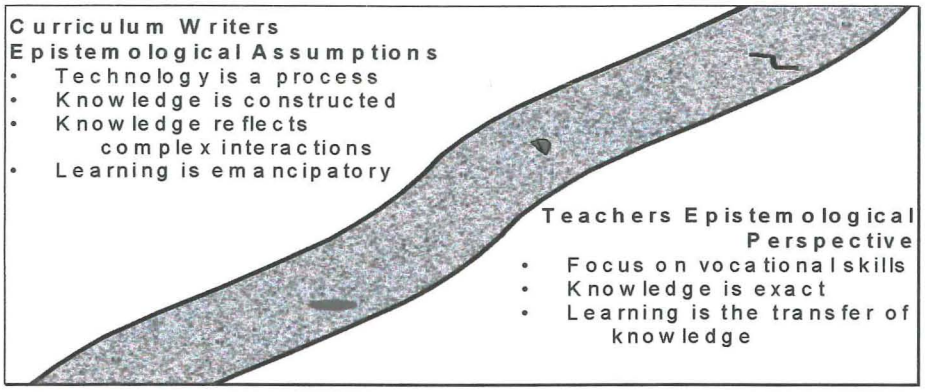
> books are available for the schools to use this will help the teachers with their planning"

The majority of the teachers' perspectives were placed within the Instrumental domain of the Habermas framework, along side the viewpoint of the Home Economics syllabus document. This is not surprising, their own beliefs being influenced by their own progression through the education system and now teaching in the education system that has used the same Home Economics document for more than 20 years. The introduction of the new Food and Textile Technology curriculum and its positioning in the Practical and Emancipatory areas of the Habermas framework exposes the dilemma of having the teachers in a different column (way of thinking) than is needed to properly implement the new curriculum. This dilemma is discussed in the next section.

4.5 Foundation of the Bridge

The document analysis carried out an analysis of teacher interviews has shown that there is a gap between the epistemological assumptions of the curriculum and the perspectives of the teachers. To illustrate the gap the metaphor of a river is used. Figure 4.1 shows the gap between the teachers perspectives and the new curriculum document as a fast flowing river that is littered with obstacles and difficult to pass.

Figure 4.1 The gap between the epistemological assumptions of the curriculum and teachers perspectives



To achieve proper implementation of the new Food and Textile Technology curriculum the river needs to be crossed, that is the teachers' perspectives, their beliefs and viewpoints need to be changed to reflect the aims and objectives of the curriculum on the other side of the river. There are several dilemmas involved in this; the first is in finding the best way to cross the river and secondly the need to convince teachers to travel across to the other side.

The safest and long-term means of crossing the river is to build a bridge. How is the bridge to be built? The bridge should provide a route that is safe and acceptable to teachers who are expected to travel the route. Collins (1997) five critical challenges will be used to guide the construction of the bridge;

1. understanding the concept of technology education as portrayed in the curriculum document
2. defining constructivist learning, understanding constructivism in the classroom and using it in the classroom
3. developing and providing authentic problem solving objectives for the students

4. securing adequate time and resources (human, physical and material) to accompany the classroom technological activities.
5. finding and achieving ongoing motivation to fulfil the curriculum requirements.

Teachers use their understanding, epistemological assumptions and theories of knowledge in partnership within the classroom and within lesson strategies (Compton, 1997). Therefore teachers own educational philosophies and concepts must be used as the foundation of the bridge. This is stated in Collin's (1997) first challenge—To understand the concepts and philosophy of technology education. The concepts of Food and Textile Technology as outlined in Table 4.3 (column 2) and expanded in the Practical and Emancipatory columns of Table 4.1 are the keystones of the bridge foundation.

The building blocks of the foundation are the teachers themselves. Teachers' experiences and perspectives are central to the study of the curriculum, classroom and schooling (Bullough, 1992; Carlgren, Handal, & Vaage, 1994; Goodson, 1992). As this study showed, teachers are satisfied with the name change from Home Economics to Food and Textile Technology however they are unaware of the ideological change embedded in the name change.

Similarly, Robert Schuyt (Schuyt, 1998) found, in his study of the implementation of the Technology curriculum in New Zealand, that teachers had a lack of understanding of the central core of Technology as a subject;

> "Teachers have very little/ sparse teaching knowledge or not at all, that is teachers have nothing to 'hang their hat on' when teaching technology" (Schuyt, 1998)

In the same vein, Marsh (1997) states that there is no way that teachers can have an understanding of the nature of technology as they do for subjects such as mathematics or science which have a recognized content and concepts shared by the community. Technology education throughout the world has faced difficulty with definitions, and teachers/ community perspectives. Countries, such as; United Kingdom (Layton, 1992), New Zealand (Benson, 1995; Jones, 1993 and Benson, 1995) and Australia (Marsh, 1997), have struggled with Technology curriculum implementation over recent years. The situation facing teachers in Samoa is not unique to Samoa, however as this Thesis will portray there is a need to build a bridge linking the teachers perspectives and the Food and Textile Technology curriculum. Furthermore teachers of Samoa need to be intimately involved in the bridge construction and used as the building blocks of the bridge otherwise the bridge, once built, may never be used by the teachers.

4.6 Conclusion

A comparative document analysis of the curriculum pre-2001 and post 2001 identified similar and contrasting data. Most importantly it revealed that the document differed in underlying principles (as outlined in Table 4.3). The philosophical nature of knowledge embedded in the subject was discussed using Habermas Theory of Human Interest (Table 4.1). It showed that the Home Economics document used in Samoan schools prior to 2001 was placed firmly

in the Technical/ Instrumental domain. With its emphasis on knowledge that is exact and measurable.

Teacher's perspectives were also placed in the Instructional/ Technical interest. In contrast the Food and Textile Technology curriculum was positioned within the Practical and Emancipatory domains (Table 4.1). Its emphasis is on constructing knowledge through interaction with the environment and use of critical thinking in the tasks and activities.

Placing the documents and the teacher's perspectives in the framework (Table 4.1) showed there is a gap between the teacher's perspectives and the new curriculum document. This was illustrated as a fast flowing river that is littered with obstacles and difficult to pass. To cross the river and allow the implementation of the new curriculum to be successful, a bridge is required. The foundations of the change will be built on the teachers own understanding the concepts and philosophies of the Food and Textile Technology. Of critical importance is the use of teacher's own experiences and perspectives as the building blocks of the bridge.

This chapter has shown that the name change from Home Economics to Food and Textile Technology has meant a shift in subject philosophy and in the concept of knowledge. Teachers will need assistance to cross the river to link up their ideologies with that of the new curriculum. The building of a bridge constructed from the perspectives of the teachers and founded on the conceptions of knowledge will enable teachers to connect with the Food and Textile Technology curriculum.

Chapter 5 Action speaks louder than words

> "If Technology is to become established as an academic subject it will need to develop different methods of teaching and learning from those commonly practiced by the subjects it has replaced, especially craft, design and technology, textiles and Home Economics."
>
> Hendley and Lyle, 1995 cited in (Marsh, 1997:117)

5.1 Introduction

This chapter will focus on pedagogical assumptions of the written curriculum document as well as the perspectives of the teachers. The premise of the chapter is that the two documents embrace competing pedagogical views; this is illustrated by discussing conceptions and use of the curriculum document itself from data collected from a document analysis and interviews with teachers.

The conception of curriculum and the use of curriculum are a key difference between the two curriculum documents. The Home Economics document reflects the paradigm of curriculum as a product that is transferred to the student from the teacher this is. In contrast the Food and Textile Technology curriculum document is explicit in its intentions and states that learning is constructed, and the teacher must make their own decisions in planning school and classroom programmes.

Data from interviews reveals teachers are willing to use the new curriculum however they have little understanding of the alteration in the conceptions of the curriculum document itself and in teaching methodology involved in the document. Teachers are continuing their current practice in regard to use of the curriculum and student books.

Factors influencing teaching style were seen to be lack of resources and the level of student directed to take the subject.

Construction of a bridge to span the gap/river, created between the teachers and the new Food and Textile Technology curriculum, continues with the building of the support columns. Two supports will be assembled using the Collins (1997) critical challenge—to define constructivist learning and apply it to the classroom.

5.2 Document Analysis

The comparative analysis carried out on the curriculum documents revealed categories relating to pedagogical assumptions as outlined in Table 5.1.

Table 5.1 Curriculum structure and pedagogical concepts of the curriculum documents

Category	1980 Home Economics Syllabus	2000 Food and Textile Technology Curriculum
Language concepts	Language is used to convey content material, some parts of the book used simple (English) language, some parts were more complicated (text-book) language.	Explicit link between language and learning with a specific 'strand' named communication. Involving achievement objectives related to the role of language and learning
Purpose of document	To provide a prescription for teachers and students of content knowledge of the subject	To provide a set of statements which define the learning principles and achievement aims for the teachers

Table 5.1 cont'd

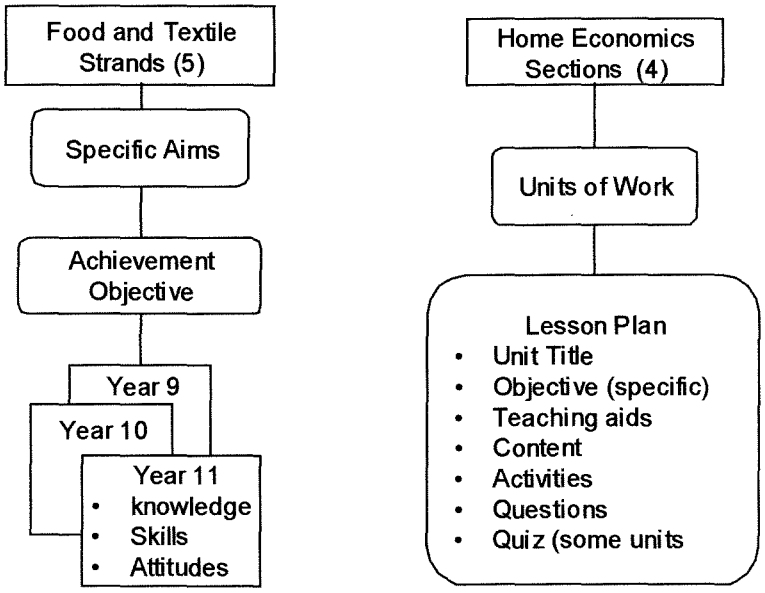
Category	1980 Home Economics Syllabus	2000 Food and Textile Technology Curriculum
Document Structure	Document consisted of a student book for use by the teacher and the student. One student book per year level—year 9, 10 and 11	Curriculum consisted of a several documents; Samoan Curriculum Overview Document, Food and Textile Technology Curriculum statement and Series of student books for each year level and strand
Content of Document	The document included lesson plans, content facts and student activities.	Section one contains statements regarding context and teaching/ learning process. Section two contains the subject content divided into strands, specific aims and achievement objectives.
Translation of aims into practice	That teachers use these books as their school programme.	Teachers use this as a basis to write their school programme.
Role of teacher	Teachers make few decisions in planning lessons and class activities	Teachers are to make their own decisions

Table 5.1 shows the two curriculum documents differ in their purpose and manner that they are to be used. Home Economics was shown to be prescriptive in nature, meaning it provided teachers with actual units of work including lesson plans with objectives, list of teaching aids and written activities. In contrast the Food and Textile Technology curriculum does not contain any such instructions; the document contains only general strand topics, specific aims, linked to

achievement objectives within each year level. The overall assumption of this document is that teachers are to make their own decisions in all planning programmes, units of work and lesson plans. In addition the Food and Textile Technology curriculum consists of more than one document, it is a combination of two general documents and a series of student books.

Figure 5.1 illustrates the specific structure of the documents in a flow chart format.

Figure 5.1 Content structure of the two documents



5.3 Curriculum Concepts

> "The discussion on different ideologies demonstrates the contestable, problematic nature of curriculum and how different aspects of curriculum are valued by different individuals and groups" (McGee, 1997:22)

A literature review of curriculum and types of curriculum revealed a wide range of ideologies. Table 5.2 outlines three paradigms of thought discovered from the literature in relation to pedagogy and the

process of turning theory into practice, the conception of curriculum and the role of the teacher. In this chapter the term 'conception' is used as more than a cognitive phrase but as a devise that can be used to place the curriculum writers assumptions and the perspectives of teachers (Keiny, 1994).

Table 5.2 will be used as a framework to further position the curriculum documents analysed as well as the position of the teachers interviewed.

Table 5.2 Concept of curriculum and teachers role

Concepts of Curriculum	Transmissive Vocational/ Neo-classical Curriculum as a product	Transactional Liberal/ Progressive Curriculum as practice	Transformational Socially/ critical Curriculum as Praxis
Knowledge	Objective, a public matter Skills and information, facts and concepts Technical/rational/ scientific interest	Subjective: a private or individual matter Living skills which have meaning in the life context and culture	Has meaning in actions and social actions or projects Emancipatory interests
Learning theory	Behaviourism	Constructivism-interaction	Social constructivist-interactionist
Broad curriculum organisation	Rigid subject differentiation and timetabling Stringent selection of students based on performance criteria	Weak subject differentiation and timetabling, selection of students on basis of interest and readiness	Subject and use of time based on negotiation between community, teachers, and student, based on commitment to task, resources and expertise
Teacher's role	An authority, transmitting knowledge, structuring and sequencing facts	A 'mentor' or facilitator, organising learning opportunities	A project organiser and resource person Organises critical and collaborative activities in negotiation with students

Table 5.2 cont'd

Concepts of Curriculum	Transmissive Vocational/ Neo-classical Curriculum as a product	Transactional Liberal/ Progressive Curriculum as practice	Transformational Socially/ critical Curriculum as Praxis
Role of parents	Non-professional support; parents as clients	Individual consultation, ancillary support	Participation and negotiation at all levels
Role of student	Passive learners, receiver of information and facts	Students are active learners, students to solve problems with authentic solutions	Active participant in the learning process, increased responsibility for own learning activities
Society	Prepares and selects students for participation in society; school has a role in maintaining, reproducing and legitimating social, economic, political structures	Prepares student to participate in the reconstruction of society, to be socially responsible	School and society reflect one another, school may help in overcoming inequalities Prepares students for participation in social, political and economic activities
Developed from (Kemmis, Cole, & Suggett, 1994), (Grundy, 1987) and (Wideen, Grimmett, & Andrews, 2002)			

The three concepts of curriculum are translated simply as product, practice and praxis (Grundy, 1987). Each of the conceptions have differing beliefs and viewpoints as regard to its underlying learning theory and the role of; knowledge, student, teacher, curriculum, parent and society.

The product conception of curriculum involves knowledge that is objective and technical. The underlying learning theory is

behaviourism where the environment is controlled; the curriculum content is based strictly on set criteria and where the teacher is the authority that transfers the knowledge to the students and where the students are to achieve mastery.

In contrast the other two curriculum conceptions are based on the Practical and Praxis. Both these concepts are based on Constructivism, with the viewpoint that knowledge is not transferred but is created as an interaction between people, the environment and the subject content. The role of teacher, student, parent and society is encompassing and inclusive.

The analysis of the Home Economics syllabus document reveals (as shown in Table 5.1 and Figure 5.1) a structured prescriptive document, where knowledge is objective and based on disciplinary divisions. This places it within the Product column of the Table 5.2 framework.

The Food and Textile Technology curriculum is explicit in its declaration of constructivism with its expectations of teacher and pupil roles in the teaching and learning process positioning the document within the practice paradigm with the possibility of progressing to the third praxis conception.

5.4 Teachers

> "A close orientation exists between teachers concepts of learning and their decision-making during teaching a lesson"
> (Fischler, 1994:170)

Most teachers revealed they were satisfied with the 'old' Home Economics books and used these books until the new student books were made available in 2002. Participants stated they were not

changing their school programmes, just moving into using the new student books. Teachers were using the new student books as they used the old Home Economics books, starting at the beginning and work through the book in order.

Consequently the increase of student books from one book per level (one Home Economics year 9 book, one year 10, and one year 11 book) to three student books per level (e.g. three in year 9) was equated as more work for themselves as teachers and more work for the students.

> "I am using the same programme, with the old books and the new books ... the students are starting to use the new books though, we are up to book 2 now" (Teacher 1)
>
> "We are still trying to familiarise ourselves with the new books ...there is more work now with more books to go through..." (Teacher 3)
>
> "the old books were good to use and I liked using them especially because it was just one book each year.....the new curriculum is good but now it adds up to a lot more work with 3 text books now instead of just one a year" (Teacher 2)
>
> "I haven't changed by programme.. I am still using the same one from last year.... You know its harder now with more books for the student to do" (Teacher 4)

There was also a perception that all the activities in the student books are to be carried out, instead of the teacher choosing to suit their students and school programme. In addition there is a assumption that the three new student books relate directly to the three school terms. That is; book 1 for first term, book 2 for second term, and book 3 for the third term, with no change or alteration. For example some classes doing book 2 during Term 1, while other classes do book 1 because of the lack of books for the high number of classes.

> "We are using the same plan, there is a little difference, before there was 3 main areas, but now there are 4 areas, the 4 strands.... There were some complaints *(from other Food and Textile Technology teachers)* that there are too many activities and they don't really have time and space in the rooms to do them especially with the big classes...we are a little behind because it is term 2 we are still finishing book 1" (Teacher 7)
>
> "we didn't receive enough text books for all our classes so some classes had to wait until the books arrived" (Teacher 4)

Similarly teachers also stated that their teaching methods have not changed, factors that influenced the teacher's style of teaching were lack of resources and the low level of students.

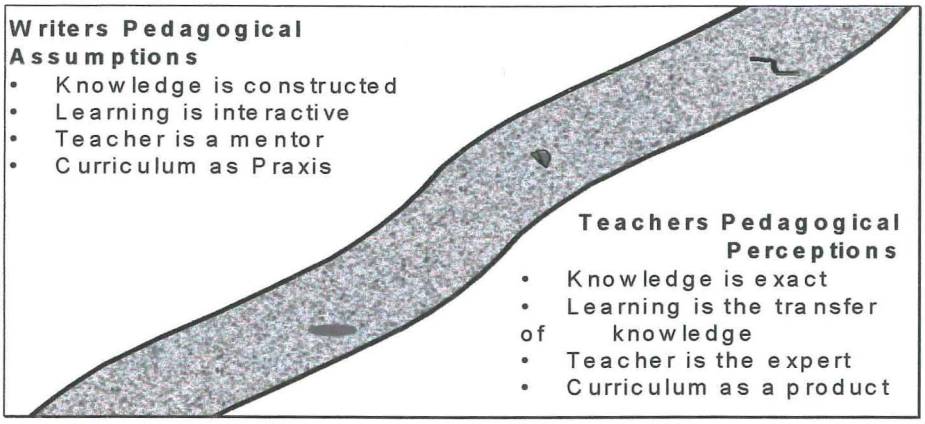
This data suggests that the teachers and their behaviour follows the product/ object concept view of curriculum as outlined in Table 5.2, where the teacher makes few decisions and simply follows the books as their programme (illustrated by Figure 5.1). Whereas this was appropriate use for the Home Economics document, it is in contrast to the concept and purpose of the Food and Textile Technology curriculum statement, which is positioned in the practice paradigm column of Table 5.1.

As with the epistemological differences in chapter 4, this reveals a gap between the perspectives of teachers and the intended purpose of the Food and Textile Technology curriculum document.

5.5 Bridge supports

Again there is a gap between the teachers pedagogical behaviour and perspectives and the assumptions revealed in the new Food and Textile Technology curriculum (Figure 5.2).

Figure 5.2 Gap between the teachers pedagogical perspectives and the curriculum writers assumptions



Following the bridge foundation in chapter 4, this section will build the bridge supports. Collins's (1997) second critical challenge will be used to guide assembly—to define constructivist/ heuristic learning and apply it to the classroom.

The first support of the bridge must include conceptions of curriculum and in particular understanding the concepts of constructivism. This stance maintains that learning begins with past experiences and relationships and knowledge is constructed through interaction with content rather than imitation or repetition (Abdal-Haqq, 2000). Table 5.3 outlines the contrasting roles of teachers, students, parents and community in relation to the use of curriculum. This chapter contends that the introduction of the Food and Textile Technology curriculum involves a change in curriculum concept from the syllabus view of curriculum to a pedagogical view of curriculum (Grundy, 1994). This is illustrated below in moving from Figure 5.3 to Figure 5.4.

Figure 5.3 The syllabus view of curriculum

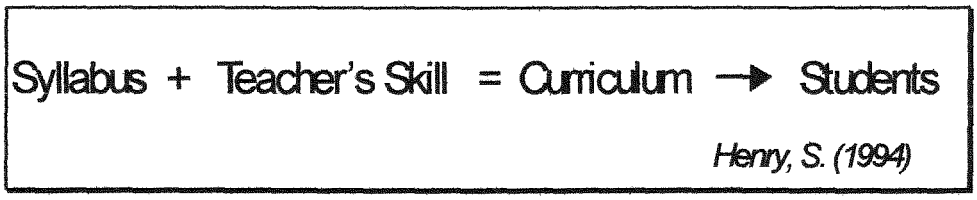
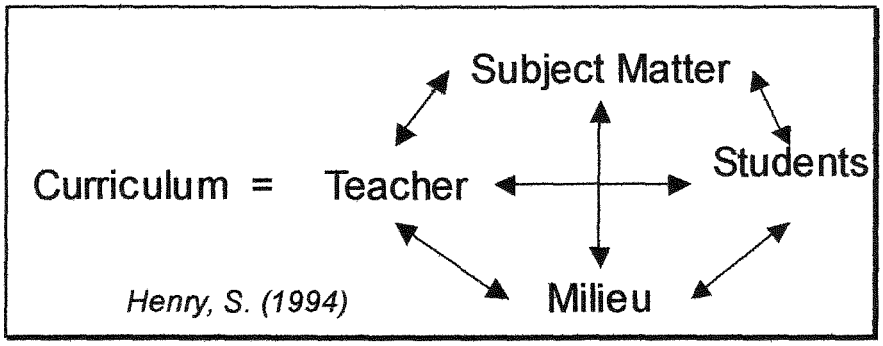


Figure 5.4 The pedagogical view of curriculum



The construction of the second bridge support involves the application of constructivism in the classroom. The task of translating theory to practice is formidable (Abdal-Haqq, 2000) and presents complex dilemmas in Samoa. The post-colonial position of Samoan education includes principles and values promoted by the formal school system (as explained in chapter 2 and illustrated in Figure 2.2) and reflects, not the Samoan culture, but the ideologies of; firstly the European culture that first introduced the system, secondly the colonial government administrations and lastly the aid-donor countries that continue today to provide funds for 'reform' projects (Thaman, 1998).

The Home Economics document was written in 1980's as part of an Australian aid project, and as would be expected teaching methods practiced by the teachers' emulated the learning theories of the 1980's (Thaman, 1993). The new Food and Textile Technology

curriculum statement written in 2000 (Department of Education, 2000) is part of a New Zealand aid project. Consequently the document closely follows the New Zealand curriculum statement documents both in structure and philosophy and emulates New Zealand's current popular learning and teaching theories, such as constructivism (Marshall, Coxon, Jekins, & Jones, 2000).

Gaining an understanding of constructivism and then applying it in practice requires a conceptual change (Collins, 1997), which entails a higher-order change, specifically 'learning about learning' (Keiny, 1994). It is impossible to achieve understanding of constructivist ways of learning through reading, such as reading the curriculum or the teachers' handbook (Collins, 1997). The building of the bridge supports must therefore focus on appropriate teacher development and in reducing obstacles to constructivist learning.

Participants in this study showed willingness to use the new curriculum but it was also revealed they had little understanding of the change in concepts from the old document to the new curriculum.

5.6 Conclusion

As with the epistemological gap outlined in chapter 4, there is also a gap separating the teachers' perspectives and the Food and Textile Technology curriculum intentions in relation to pedagogy. Two bridge supports were built by addressing pedagogical differences discovered from within the data; the conceptualisation and use of the curriculum document and the perspectives of the teachers.

Data from teacher interviews revealed teachers' perspectives as regards the Food and Textile Technology student books are

unchanged from the Home Economics books. That is, they are using the student books, as textbooks, beginning at the start and moving through the chapters in order. This was the practice with the Home Economics document and reflects the country providing the aid at the time, (Australia in the 1980's). The introduction of the new Food and Textile Technology curriculum also reflects the practice followed in the country providing the aid funding and consultants (New Zealand) at the current time.

Moving from the current teaching practice which is dominated by Instructional approaches to a constructivist orientation requires a high-order change which is not achieved by reading handbooks or by attending a short workshops. Assembling the bridge supports requires time, resources, motivation and expertise.

Chapter 6 Decision making and Leadership

> "Teacher's conception of their role, reflects their beliefs or basic assumptions about the pupil, learning and teaching, about society, goals of education and about knowledge"
>
> (Keiny, 1994:233)

6.1 Introduction

Teacher as a leader and their capacity to make wise decisions is the focus of this chapter. Discussion will begin with data collected from the document analysis, showing how the old and new curriculum documents hold different expectations of teachers. As revealed in earlier chapters the Home Economics syllabus is a prescriptive document where teachers are expected to follow the book as written. This is in contrast with the new Food and Textile Technology curriculum, which contains much higher expectations of the teachers and in their decision-making. The curriculum development model from McGee (1997) is used to illustrate this increase in teacher expectation from the old to the new curriculum. The framework of teacher roles, from Wideen et al (Wideen, Grimmett, & Andrews, 2002), is also used to place the two curriculum documents in relation to decision-making.

Data collected from interviews reveals the reality of the situation facing the teachers. These include, lack of resources, low status of the subject, shortage of teachers, lack of knowledge and expectation of others. This discussion will include references to 'influences on' and the 'affects of' the situation facing teachers in

relation to their decision making in two areas—practical lessons and teaching style.

The river represents the gap between the curriculum expectations and the teachers' reality. The construction of the bridge over the river continues with the building of the walkway. Collins's (1997) last challenge—finding adequate resources, using authentic situations and maintaining motivation are used as a guide for construction of the pathway. This takes the form of leadership qualities and the importance of decision-making abilities in relation to teachers in Samoa.

6.2 Document analysis

The comparative analysis provided three types of assumptions of the document; philosophical, language and content, these are outlined in Table 6.1.

Table 6.1 Assumptions of Curriculum Documents

	1980 Year 9 Home Economics Syllabus	2000 Food and Textile Technology Curriculum Statement and Year 9 Book 1
Content Assumptions	Schools have workshop classroom with equipment for teaching practical lessons in foods and textiles Practical lessons included; such as breakfast, lunch and dinner. Skills / vocational based content ie: correct techniques for making product	That workshop class rooms with equipment are available for teaching practical lessons. That resources are available to carryout suggested learning activities e.g. cardboard, magazines, scissors, glue, bus/transport for class trips, money for visiting speakers, video player, television, library, research facilities

Table 6.1 cont'd

	1980 Year 9 Home Economics Syllabus	2000 Food and Textile Technology Curriculum Statement and Year 9 Book 1
Language Assumptions	That students and teachers have a knowledge of English. Passive learning	Teachers have knowledge of English. Once they understand the meaning of the new words they will know how to apply them e.g. 'compare and contrast' as an achievement objective.
Teacher Assumptions	Teacher centred teaching That the teachers are working from a positivist view of teaching and learning. Knowledge is transferred from teacher/ textbook to student. Teachers are provided with lesson objectives and lesson plans within the syllabus book. Teachers follow the prescribed text, making few decisions	Student centred teaching That teachers are working from a constructivist point of view that is, learning is achieved through interaction. Teachers understand what is meant by the new title—'Technology'. Teachers understand the meaning and the use of 'achievement objectives'. That the teacher will integrate the units in the book within their own programme; they are expected to make the decisions in regard to lessons and learning activities.

Table 6.1 identifies similar assumptions across the old and new documents such as the expectation that practical workshops and resources are available for students to carry out practical hands-on activities and knowledge of the English language. The focus of this chapter will be the differing expectations of the teacher held by the Home Economics syllabus and the Food and Textile Technology documents, as outlined in the 'teachers assumptions' row.

The Home Economics syllabus is prescriptive, requiring little decision-making by the teacher in regard to the school programme and content/ activities of lessons. In contrast the Food and Textile Technology curriculum regards the teacher as creative and

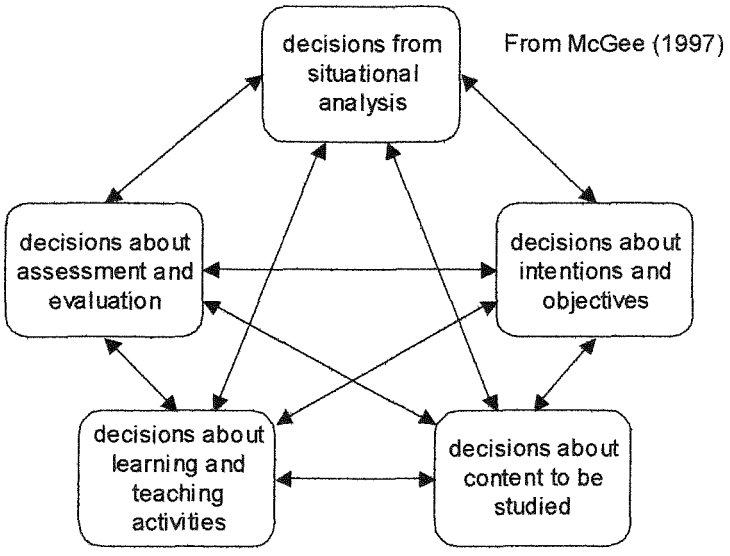
motivated, it explicitly expects the teacher to make many more decisions than in the previous Home Economics syllabus. This again places emphasis on the teacher, the teacher's philosophy of learning and the professional development of teachers.

6.3 Making decisions

> "the success of curriculum rests upon teachers' ability to make wise choices and to see them through"
> (McGee, 1997:15)

In his book *Teachers and Curriculum Decision-Making,* McGee (1997) argues that the teachers are the key curriculum decision makers and it is the teacher that transforms the curriculum intentions into 'living entities in classrooms' (McGee, 1997:15). The curriculum development model (Figure 6.1) from McGee (1997) will be used to position the expectations of the teachers and the teachers' circumstances in relation to the new Food and Textile Technology curriculum.

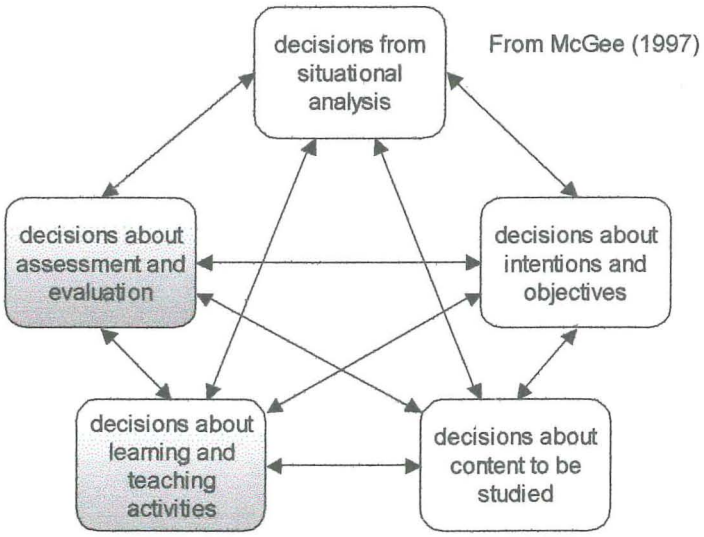
Figure 6.1 Curriculum decision-making



In Figure 6.1, five clusters of decisions have been incorporated as the model for teacher curriculum decision-making; this represents both the theoretical and practical nature of curriculum development. The key is the interconnectedness between each of the five components illustrated by the arrows (McGee, 1997).

The Home Economics syllabus expectations of teachers' curriculum decision-making can be placed within some parts of two components of the model, the shaded areas in Figure 6.2 show this.

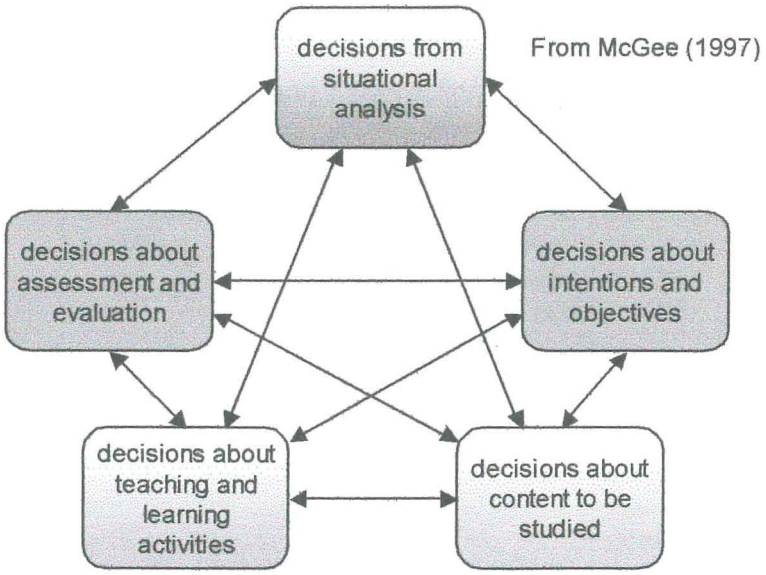
Figure 6.2 Home Economics decision-making



The Home Economics books include activities and written quizzes, teachers however are required to make decisions regarding classroom activities and evaluation within the school structure, this is illustrated by the partially shaded components in Figure 6.2. The remaining three components are prescribed by the document and teachers are expected to make few decisions regarding these areas.

The teacher expectations embedded in the Food and Textile Technology curriculum conveys a different picture with all five components shaded (shown in Figure 6.3). This demonstrates how much more the Food and Textile Technology curriculum expects from teachers.

Figure 6.3 Food and Textile Technology Curriculum Decision-making



The Food and Textile Technology curriculum includes general intentions and objectives and content areas, however neither the curriculum statement nor the year 9 student book analysed contain lesson plans, lesson aims or objectives, or evaluation quizzes. Teachers are expected to plan their school programmes, units of work and individual lessons, and assessment. The shading in all five components illustrates the increase in expectations of the teacher from the Home Economics syllabus to the Food and Textile Technology curriculum.

Table 6.2 describes three types of teachers, their role and approach in curriculum development, it brings together aspects of tables from earlier in this chapter and from chapters 4 and 5. This table will be used as a framework to place the documents and teacher perspectives.

Table 6.2 Role of Teacher

	Instrumental Approach	Pragmatic Approach	Exploratory Approach
Knowledge	Exact facts and content	Interaction within the classroom	Construction of knowledge in context
Curriculum	Set content and activities	Prepared to adapt curriculum content and activities to suit student needs	Starting point of curriculum is the student learning needs
Curriculum materials	Expects and will follow detailed teaching guides and materials	Expects detailed teaching strategies and materials but will assess the learning needs of students before using materials	Curriculum is negotiated with student Curriculum in context and specific to the learning environment of the classroom, school and community
Learning	Transfer of facts, knowledge	Emphasis is in interaction	Emphasis is on emancipatory
Developed from Wideen, Grimmett and Andrews (2002)			

Teacher behaviour and their role is classified into three approaches instrumental, pragmatic and exploratory, and is described in decision-making areas of knowledge, curriculum, materials and emphasis of learning. The instrumental approach involves teachers expressing knowledge as exact facts transferred to students, and the expectation that curriculum materials are provided that guide

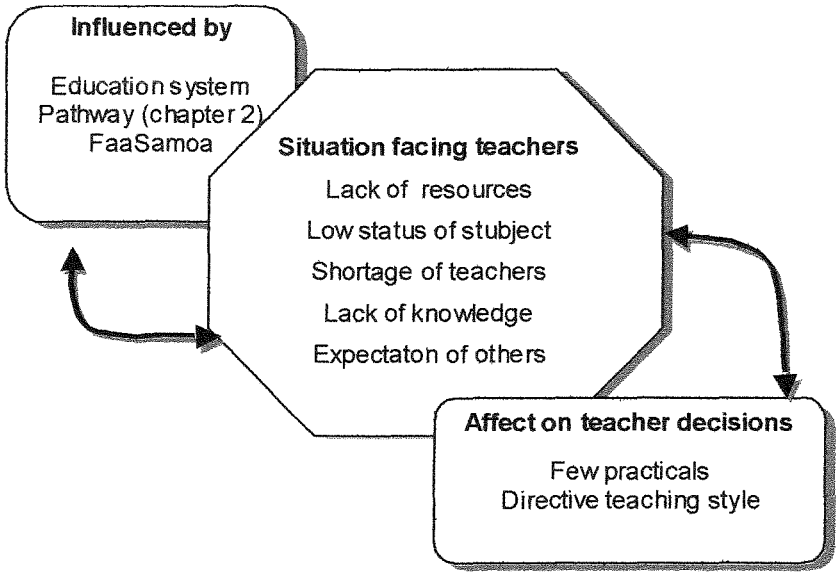
and set curriculum activities. The remaining approaches involve interactive activities, adaptation of curriculum content in line with the need of the students within a constructivist-learning environment.

The Home Economics syllabus as described in Table 6.1 fits into the instrumental approach to teacher role, with its few curriculum decisions (seen in figure 6.2). The Food and Textile Technology curriculum (also described in Table 6.1 and Figure 6.3) can be placed within the pragmatic interactive approach to teacher decision-making.

6.4 Teachers

Data collected from the teacher interviews revealed five major areas of concern for teachers. This section will discuss the situation facing teachers and how it affects the teacher satisfying the expectations of the Food and Textile Technology curriculum as outlined in the previous section. Figure 6.4 places the 'situation facing teachers' in the centre, layered underneath are the factors influencing the situation and layered on top are the affects these situations have on the teachers and the teaching of Food and Textile Technology in schools.

Figure 6.4 Influences and affects of situation facing teachers



This section will discuss the box layered on top; practical classes and teaching style. The factors that influence the situation facing teachers underpin the situation facing teachers these were discussed in detail in chapter 2. The 'pathway' term refers to Figure 2.2 in chapter 2 which outlines the education pathway sought by the people in Samoa.

The most crucial issue is the lack of resources to run a Food and Textile Technology programme. It was revealed that Textiles was taught as a theory subject in most schools, with note taking, activities from the book, and assessment with written examinations. Other reasons for not including textiles in a school programme were given as lack of knowledge.

> "it is very difficult to have practicals because of resources, and we have to ask the students to bring everything, the ingredients as well as some of the equipment...we are trying hard to do all the activities, we don't really have the time and the space in the rooms to do them especially with the big classes (50-60 students)..well you see we have difficulty with

> textiles, I am not confident in that subject and we don't have the resources so we only do foods" (Teacher 7)
>
> "the drawback about the new curriculum is the lack of resources, like sewing machines ...For the year 9 and 10 they don't do practicals because we don't have resources...some of them complain that foods is easier than textiles, because of resources and the knowledge" (teacher 6)

Another factor contributing to the low number of practical food classes included the practice of serving the food to the teachers of the school. This is a custom that has built up during the years, however it is recently becoming less common mainly in urban schools.

> "Oh yes they never miss that kind of thing, if the teachers know you are having a cooking class they will never stay put in their rooms they will always come around...they expect to eat the food and the students don't get to eat, even though the students were the ones who bought the food, lots of teachers are like that." Teacher 6
>
> "That's another thing that is not fair, this is the reason why parents don't want to support their children in providing ingredients because they know they give it all to the teachers." Teacher 5
>
> "Well yes it used to be like that, but now it has changed a bit in our school, because the school got so big and the hardship on the students and the parents, they cant afford to bring all the food, also there were complaints from the parents because we ask them to bring the ingredients then the students don't eat it or take it home" Teacher 7

Teachers have reduced the number of practical classes to lessen the hardship on the students and themselves. They have also adapted to the circumstances by making use of available resources such as, open fire outside, gas bottles (for gas burner stoves) shared with science teachers, applications to aid organisations for purchase of equipment such as sewing machines, fridge, large tables, and collecting resources themselves through family and colleagues (such as books, ingredients, and equipment).

Teaching styles are aimed at providing students with instruction to enable them to pass examinations and progress as far as possible along the pathway shown in Figure 2.1 (chapter 2).

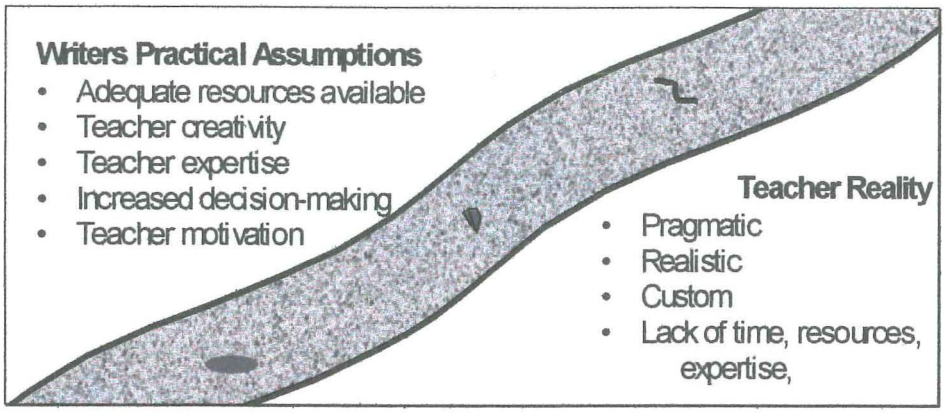
> "it is really important for the students to do their best and to pass their exams, especially the year 12 students, I always advise them to study hard because that is their school certificate year.. then they can continue onto year 13 (at another school)" Teacher 3
>
> "passing the exams is what I want my students to achieve.. unfortunately we don't get many pass the exams, but I make sure that I have finished the book and that they prepare for the exams". Teacher 4
>
> "the other college is a good example for us because they had 20 students in the year 13 class, and all but 2 passed PSSC, one even got a 2 for Home Economics, that is really showing the people that Home Economics is a good subject for the kids to do and that they can pass exams and get jobs after school" Teacher 7

The teacher expectation held by the Food and Textile Technology curriculum (shown in Table 6.1) including the increased decision-making expected of teachers is not totally transferred in reality due to the difficult situation facing teachers (shown in Figure 6.4).

6.5 Bridge Pathway

The document analysis revealed the Food and Textile Technology curriculum held certain assumptions and expectations of the teachers (table 6.1). Participant interviews in turn revealed the reality that teachers face and barriers to teachers carrying out the expected decision-making. Again this can be illustrated by a gap between the teachers' reality and the assumptions of the curriculum writers, this is shown in figure 6.5.

Figure 6.5 Gap between structural assumptions of the curriculum and teachers reality



This section will construct the last section of the bridge—the pathway. The pathway addresses the reality facing teachers in Samoan schools. Conditions, as shown in Figure 6.4, frequently have a 'de-motivating' affect on teachers, which reduces interest and efficiency (Raina, 2002:243). In this regard Collins's (1997) challenges will be used to smooth the way and construct the pathway—securing resources, using authentic problem-solving activities and achieving motivation (Collins, 1997).

Factors such as the lack of resources and shortage of teachers are environmental obstacles to teachers being able to make decisions. Another aspect affecting the teacher's ability to make decisions is psychological factors, such as self-beliefs and values (Stipek, 2002).

McGee (McGee, 1997) argues that teachers are leaders and therefore require leadership skills such as; good communicator, risk-taker, enthusiastic, have integrity, reflective, initiators of change, have vision, share information, delegate, a confidantes of others, give advice only when asked (McGee, 1997).

Teachers in Samoa have an added challenge as they work in an education system that promotes values that are not reflected in the Samoan culture (Afamasaga, 2002) (Sanga, 2002). Sanga (2000) defines leadership as

> "a relationship of influence among leaders and followers, intended to modify and influence the motivation or competencies of others" (Sanga, 2000:2).

He goes on to describe leadership as an interactive system that is established within specific contextual forms such as, temporal, social, geographical and historical factors (Sanga, 2000). He continues by encouraging Pacific Island teachers to be 'contextually responsive and responsible' (Sanga, 2000:5) to utilize cultural knowledge within classrooms by reinforcing the positive aspects of indigenous cultures.

The walkway of the bridge needs to address the environmental and psychological barriers to teacher decision-making. Emphasis needs to be placed on discovering ways of motivating teachers to become wise leaders. Sanga (2000) places the onus on the colleges of education to nurture educational leaders, he views the education of teachers as the key to providing reflective leaders in both worlds (school and indigenous communities) and strongly recommends further research into indigenous leadership at all levels.

6.6 Conclusion

Continuing the discussion concerning the gap between the Food and Textile Technology and the teachers. The focus of this chapter was the Food and Textile Technology curriculum assumptions and the teacher's reality in regard to the situation facing the teachers. McGee (1997) curriculum development model was used to show

the areas of curriculum decision-making and to illustrate the differing expectations of the Home Economics syllabus and the Food and Textile Technology curriculum.

Decision-making expected of teachers in the Home Economics was only partially seen in two components of the curriculum development model (this is shown in figure 6.2). In contrast the Food and Textile Technology curriculum expects teachers to make decisions within all areas of the model, as illustrated in Figure 6.3. This is a significant increase in expectations of the teacher.

The reality facing teachers was discussed within five areas identified from the interview data; lack of resources, low status of the subject, shortage of teachers, lack of knowledge and expectation of others. The underlying influence on this situation is the education system, education pathway and the Samoan culture. These factors consequently affect the decisions teachers make.

The bridge construction over the gap lying between the Food and Textile Technology practical assumptions and the actual teacher reality continued with the building of the causeway. The circumstances facing the teachers were regarded as obstacles to successful implementation of the new curriculum. Addressing these obstacles and encouraging teachers to actively implement effective decision in teaching strategies to meet student's needs was the basis of the bridge walkway. The pavement over the pathway is the acknowledgement that teachers are in the best position to identify needs, and builds what Smith (1999) recognises as pivotal in the implementing curriculum objectives.

Chapter 7 Bridge Blueprint

7.1 Introduction

Discussion in previous chapters has focused on the gap and the building of the bridge. In this concluding chapter to further assist in the construction of the bridge the river itself will be discussed. The river is identified as the society and the expectations of the society. Discussion will centre on the two worlds of Western style schooling and the indigenous Samoan society. Understanding the river and the obstacles it may present will assist the bridge designers, engineers and builders in the assembly of the bridge.

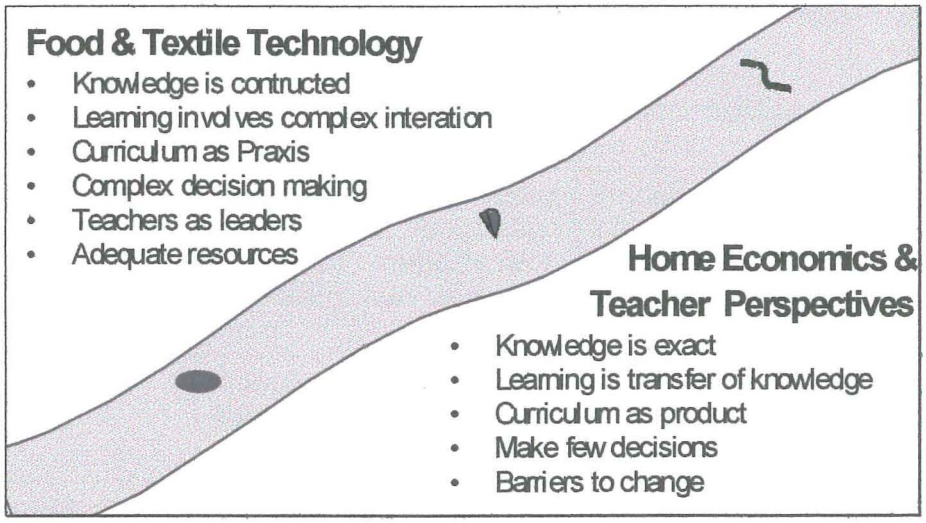
As the old and new curriculum are examined, the bridge constructed to link them together spans the river lying between the curriculum documents. The river will be discussed as the expectations of the society and the bridge itself is a change process. The blue print of the bridge is used to inform who the expert engineers will be, who the builders will be, also the method of construction and the style of bridge. A final framework is linked to the original research question from the beginning of the thesis providing a guide to the decisions regarding the overall assembly of the bridge including identifying the key workers on the bridge construction.

The last section of the chapter will return both to Sina and her story. To assist Sina in constructing her bridge, 'principles of action' are outlined in relation to both teachers and teacher educators bringing together the discussions outlined in all the chapters.

7.2 The River

The river running between the new Food and Textile Technology curriculum document and the teachers' reality as illustrated in Figure 7.1, represents the gap between the new curriculum document and the reality of the teacher's perspective. The actual river is seen as the society, and the expectations of the society, expectations on the teachers, students and the education system. This section will focus on the structure of the education system in Samoa, its relationship to the indigenous Samoan culture and way of life and how it affects the teachers and the implementation of the new Food and Textile Technology curriculum.

Figure 7.1 The River



As chapter 2 describes, when Europeans arrived in Samoa, and in other Pacific Island nations, the indigenous people practiced both a non-formal (unstructured) and informal (structured) system of education that was based on contextualised learning that was tied to specific and authentic objectives (Falgout & Levin, 1992).

Western style schools were set up and are still the dominant format for formal education in Samoa.

As Sanga (2000) states theoretically schools should model the community they reside in, in Samoa they don't. The principles and values promoted by the school system in Samoa do not reflect the *Fa'aSamoa* or even the Samoan culture. Schools in Samoa reflect firstly, the ideologies of the European culture that introduced the system, secondly the colonial government administrations and lastly the aid-donor countries that continue today to provide funds for 'reform' projects (Thaman, 1998). This is further illustrated in Table 7.1, where the differences between the Samoan culture and Western style schooling culture are compared.

Table 7.1 Selected differences between Samoan culture and Western-style school culture

	Western school practice and expectation	Samoan cultural practice
Objectives	Preparation for passing examinations. Preparation for paid employment. Extrinsic motivation to learn	Preparation for life. Intrinsic motivation to learn. Towards conformity and interdependence
Key Values	Individual rights and freedoms Independence	Cooperation, consensus, respect, generosity, loyalty, sharing.
Knowledge	Hierarchically arranged and serially learned. Validated through tests	Holistic. Validated through consensus, collaboration and scepticism
Ownership of knowledge	Public Increasing commodification of knowledge	Private Belongs to specific persons
Source of knowledge	Information	Cultural beliefs and values Sacred origins

Table 7.1 cont'd

	Western school practice and expectation	Samoan cultural practice
Thinking	Left brain Linear, logical, individualistic Abstract, analytical, empirical.	Right brain Divergent, interpersonal Concrete and context-specfic
Learners' orientation	Openly competitive Low autonomy	Quietly competitive High autonomy
Sociolinguistic rules	Use of verbal directions and explanations and expect verbal feedback	High sensitivity to social cues and emotional tone of interaction, especially in non-verbal behaviour.
Learning system	Theoretical, abstract Individualistic. Verbal direction Competition	Interpersonal: cooperation and sharing Little verbal direction
Classroom social context	Information-orientated Individual achievement focus Teacher directed and controlled	Person-orientated. Unity is emphasised. Supervision by adults non-intrusive, strong orientation toward peer
Assessment and Evaluation	Individualistic Verbal, written, abstract, decontextualised, logical	Participation and production Non-verbal feedback Real-life and context-specific.
Developed from (Taufe'ulungaki, 2000),(Teaero, 2002), (Sanga, 2000) and (Thaman, 1992, 1998)		

Table 7.1 demonstrates that the school in Samoa are where things foreign are taught (Afamasaga, 2002; Thaman, 1993). Many areas are in contrast with each other, such as key values, type of knowledge, ownership of knowledge and learning system rules.

Western schooling is based on individual rights and independence, knowledge is hierarchical, owned by the public and is seen as a commodity. Western schooling is based on classrooms orientated towards information gathering, individual achievement and is teacher directed. This differs to the Samoan way of learning whereby the focus is placed on cooperation, loyalty, sharing, humility, and holistic concepts. The learning system is based on observation, demonstration, listening, with little verbal direction.

This has been an acknowledged throughout the Pacific as an ongoing challenge for the teachers and the teacher educators of the Pacific (Pene, Taufe'ulungaki, & Benson, 2002). The educational challenge has always been to address the complex issues that arise from the upholding the traditional ways together with adopting modern ways (Nabobo, 2002).

Thaman (1993) outlines two phases of Pacific Island schooling during the 20th Century. The first during the colonial period whereby there was a need for the training of public servants for use in the colonial administration. The second phase being situated during the period of political independence from colonial control, where cultural ideals were made a part of the schooling life. Thaman maintains that the curriculum in both phases continued in the Western style of academic schooling with the emphasis firmly on passing examinations (Thaman, 1993). Students, parents, teachers, and principals live an indigenous life (column 2, Table 7.1) however they have fully adopted the expectation of schools shown in the first column (Table 7.1).

Data collected from the analysis of the old and new documents has shown that the introduction of the Food and Textile Technology curriculum, with its modern constructivist/heuristic approach moves away from the Western style school practice and expectation illustrated in Table 7.1, and in fact it fits better within the second column, the Samoan cultural practice. However as the Pathway figure (in chapter 2) illustrates, society has definite expectations of the education system, the teachers and of the students.

The system was developed as a need to allocate the scarce resources available to the country (Thaman, 2002) and at this point is very difficulty to change. Even with the new curriculum documents stating explicitly the change of philosophy and teaching learning style from the transfer of knowledge to constructivism the expectations of the society remains the same, as does the outlook of the teacher, student and parent.

7.3 The Bridge

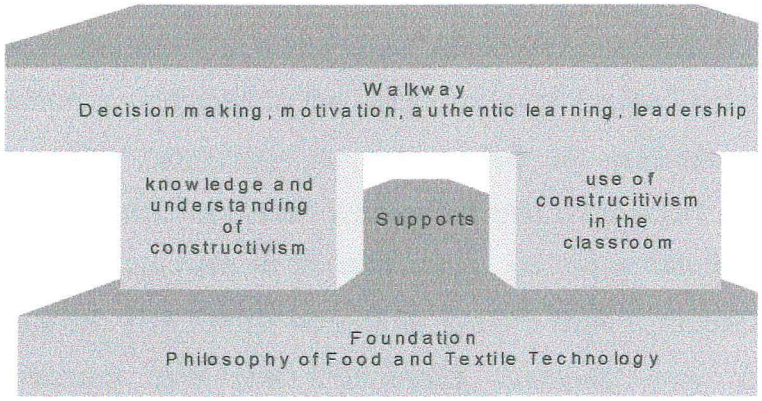
In this section four areas will be discussed in relation to the construction of the bridge, firstly the bridge structure will be bought together from the previous chapters. Secondly the design of the bridge is examined using three change theory paradigms to inform the design, giving suggestions as to the identity of the engineers and the builders of the bridge.

The construction process will investigate the role of the teacher educator in the building of the bridge, drawing on current literature to direct the method used to build the bridge. The final section on the blueprint brings together the previous three sections as a

choice between three different paradigms, one is chosen as the most appropriate for the situation in Samoa.

7.3.1 Bridge Structure

Figure 7.2 Structure of Bridge



The structure of the bridge as illustrated in Figure 7.2 brings together the concepts as explained in the preceding chapters. The foundation is constructed from the philosophy of the subject. To cross the river teachers need to understand the different philosophies between the old Home Economics syllabus and the new Food and Textile Technology curriculum. Habermas's theory was used to position the subject within an epistemological framework. Without a foundation of understanding of these philosophies the bridge will not hold up and collapse before the bridge is completed.

The supports of the bridge are taken from the second gap identified as pedagogical assumptions. The bridge is needed to take teachers from their current teaching and learning perspectives closer to the new and contrasting pedagogical conception. This is achieved by first defining constructivism and second applying the strategy in the

classroom. This is an imperative component of the bridge, as without solid supports the bridge will not hold the weight of the walkway or the people.

Linking the different expectations of the old and new curriculum is the walkway. McGee's (1997) curriculum development model is used to illustrate the increased expectations of teachers from the Home Economics syllabus to the new Food and Textile Technology curriculum. The causeway is constructed by addressing the situation facing teachers, with leadership and motivation used as the pavement. Teachers in Samoa move everyday between two different worlds. The formal schooling system that is modelled on Western values and the indigenous Samoan way of life (*Fa'aSamoa*), therefore the pathway across the bridge must be grounded in context of the reality of the teachers' circumstances.

7.3.2 Bridge Design

> "Curriculum implementation is not an event it's a change process" (Cho, 1998:29)

By being the link between the old curriculum, teacher perspectives and the realities of teachers' to the new curriculum's expectations and assumptions, the bridge itself is a change process. Chin and Benne (1968), cited in Nisbet, (1980) and McGee, (1997) presents three change strategies; power-coercive, rational-empirical, and normative re-educative. This is shown in Table 7.2 together with three curriculum implementation approaches from Montgomery and Way (1995).

Table 7.2 Change and Curriculum strategies

	1	2	3
Change strategies	Power-coercive: Those with social power to mandate changes introduce change with official policy.	Rational-empirical: Based on persuading others to adopt a change, using reason and rationalisation of knowledge	Normative re-educative: Focus is on individuals and groups, their norms relating to attitudes and values
Approach to curriculum implement ation	Fidelity: Rule orientated, technological and linear approach the teacher is the passive receiver of a change product	Mutual adaptation: Acknowledges that teachers make adaptations to reduce the gap between the ideal implementation goal and the actual context	Curriculum enactment: Recognises that teachers not only adapt curriculum but they shape it according to their own theoretical concepts.
Developed from Nisbet (1980); McGee, 1997; Montgomery (1995) and Wideen (1996)			

This table outlines the different ways the bridge can be designed. The power-coercive column represents the mandate approach to change, where the changes are carried out through official policy. Likewise the fidelity approach to curriculum implementation follows the rule-oriented method with the teacher as the passive receiver. In contrast the rational-empirical mode uses persuasion to convince people to adopt change, and similarly the mutual-adaptation means to curriculum implementation acknowledges the teacher and their role in curriculum process. And thirdly the normative re-educative approach to the change process focuses on individuals and their values and beliefs, with the curriculum implementation process recognising the influence of teachers' own concepts and beliefs in shaping the curriculum and its delivery.

Used as a design to build the bridge the column 1 approach would signify the bridge being designed not by the teachers but by an authority outside the teaching learning process. For example totally by the politicians and civil servants working within the government, or by those from outside the country asked to come in to design and build the bridge. A column 2 based design includes persuading teachers of the need for change and incorporates teachers' reality within the design and building of the bridge. Lastly column 3 acknowledges and uses the teacher's own beliefs and concepts within the change and curriculum implementation process. Teachers would themselves be the designer, engineers and builders of the bridge, it would be owned by the teachers, the teachers would use the bridge frequently to cross the river.

These three different change processes as well as the three-curriculum implementation approaches are used as a basis for decisions regarding the overall design of the bridge and the style of construction.

7.3.3 Construction Process

> "Few classroom factors have greater impact on student achievement than the ability of teachers to teach well"
> (ASCD, 1997)

An essential component of the construction process is the involvement of the teacher educators. Side by side with the teachers building the bridge are the teacher educators, as Sanga (2000) challenges the teacher educators of the Pacific to nurture educational leaders to be able to work in both school and indigenous communities. Teacher educators are (and should be) the engineers of the bridge. In this section the term teacher

educator refers to the person/s who plan and carryout teacher professional development, they are the expert engineers of the bridge. Shaping and implementing teacher development programmes essential to build the bridge across the river.

A search of recent literature reveals a wide variety of teacher development models such as; Kwo's (1994) five-stage model of teacher development; Loughran's (1997) principles of pedagogy; Northfield and Gunstone's (1997) set of principles; Hoban's (1997) three professional development models; Tom (1997) conceptual and structural principles; Reiman (1999) three domains of teacher development; Diez's (1999) five components for preparation of effective teachers; Gold's (Gold, 1999) two dimensions of teacher education; and Connelly & Clandinin's (2000) two metaphors of teacher education.

Alan Tom (1997) groups the teacher education models into; academic, teaching effectiveness and collaborative. These are similar to Wideen (Wideen et al., 2002) conceptions of professional development of knowledge transfer and skill development, reflective practice and socio-political-cultural perspectives (Wideen et al., 2002) shown in Table 7.3. Also outlined in Table 7.3 are three ways of understanding teacher education rationalization which in turn illustrates different concepts of the who the 'expert' bridge engineer is and where the experts come from.

Table 7.3 Conceptions of Professional Development and Education Rationalisation

	1	2	3
Strands of professional development	Knowledge transfer and skill development	Reflective practice	Socio-political-cultural focus
Concepts of teacher education rationalisation	Rationalisation without reconceptualisation	Rationalisation in advance of reconceptualisation	Rationalisation emerging out of reconceptualised practice
Taken from Wideen, Grimmett, & Andrews, (Wideen et al., 2002)			

The first strand of professional development revolves around teachers as passive recipients of knowledge in content areas (column 1 in Table 7.3). It involves top-down rationalisation/ political justification of teacher programmes where the teacher educator's involvement is passive and reacting to polices and/or directives from government. The engineers in this case are the 'experts' provided by the government, past practice in Samoa has seen the 'expert' recruited from outside Samoa. These 'experts' come to Samoa to plan and write the programmes then assist in training others.

The reflective practice approach focuses on teacher's values and underlying beliefs using their classroom behaviour to examine their own practices (column 2). And involves some imposed rationalisation/ reasoning but also at the same time consults with teacher educators, inviting them to reconceptualise their current programmes and practice. In this approach the engineers of the bridge consist of both overseas 'experts' and the teacher educators of Samoa.

The third perspective (column 3) examines the political, social and moral aspects that constrain teaching and learning (Wideen et al., 2002). Also within column 3 the emphasis is on the reconceptualisation of the teacher educators practice with rationalisation evolving from the experience, this is a bottom-up approach. The 'expert' engineers in this scenario are the Samoan teacher educators themselves.

This framework informs the approach to education of teachers and consequently is used within the blueprint of the bridge as to how and who will build the bridge. In Samoa pre-service teacher education is provided by National University of Samoa, with the Ministry of Education, Sports and Culture (formerlly the Department of Education), carrying out in-service training for teachers who are already within the teaching profession (IST). Currently the Ministry of Education, Sport and Culture are undergoing quite a few projects that involve contracting overseas consultants to Samoa. Even though the Faculty of Education has many professional contacts with other bodies and institutes around the Pacific, the faculty does not have the same level of input from overseas consultants it uses the expertise of its staff to instruct their programmes and courses.

7.3.4 The Blueprint

What will the bridge finally look like? Who will build it and who will use it? The blueprint is the plan of the bridge, and produces the answers to the above questions. To assist with writing the blueprint tables 7.2 and 7.3 have been joined into one conceptual framework as shown in Table 7.4. This framework will be used decide which column will be used as the blueprint.

Table 7.4 Bridge construction framework

	1	2	3
Bridge structure Change strategies	Power-coercive	Rational-empirical	Normative re-educative
Type of bridge Approach to curriculum implementation	Fidelity	Mutual adaptation	Curriculum enactment
Building process Strands of professional development	Knowledge transfer and skill development	Reflective practice	Socio-political-cultural focus
Who will build Concepts of teacher education rationalisation	Rationalisation without reconceptuali-sation	Rationalisation in advance of reconceptua-lisation	Rationalisation emerging out of reconceptual-ised practice
Taken from; (Grundy, 1994; Grundy & Henry, 1995; Kemmis, Cole, & Suggett, 1994; Nisbet, 1980; Wideen et al., 2002)			

Column 1 describes the situation whereby the 'expert' engineer (who is commonly from outside Samoa) builds the bridge, and when the bridge is complete, the teacher educators and teachers are asked to cross the river using the bridge. In column 2 the 'expert' engineer (who is chosen by the government, usually from overseas) together with teacher educators and teachers work along side each other to construct the bridge. It is a reflective process using a variety of learning processes, and the rationalisation of the courses occurring before the teachers and teacher educators understand the concepts.

Column 3 goes further and places emphasis on the practitioner—the teacher. The 'expert' in this setting is the teacher first and second the teacher educator. By recognising and using the affect of

teacher and teacher educators beliefs and values on the curriculum process they jointly reconceptualise their practice and together they assemble the bridge across the river.

The approach outlined in column 1 has been the major method of implementing curriculum changes over the years, (including Samoa in the 1980's and 1990's), consequently there is much research data available on this style of change. Literature reveals that this approach does not work (Bailey, 2000; Wideen et al., 2002). The result being that the bridge, once built, will not be used. Unless the users, the teachers, have a part to play in the construction of the bridge they will not willingly use the bridge (Hargreaves, 1994). In some scenarios the teachers may be lead across the bridge but as soon as the person leading has left the teachers will return straight back to their side of the river.

Within the Samoan context column 2 could prove to be the best choice to make. Evidence from other countries facing similar challenges such as; Jamaica (Wideen et al., 2002), Algeria (Ghedjghoudj, 2002), and Africa (Semali, 2002) indicate that the jump to column 3 is difficult to accomplish and many countries are not equipped for the jump to the column 3 approach. Therefore column 2 shows its self to be the best choice for implementation of the Food and Textile Technology curriculum.

The question as to which approach (which column) was used for the implementation of the Food and Textile Technology curriculum is not part of this study and requires further study. However data from this study shows that there is still a gap between the teacher

perspectives and the new curriculum approximately two years after its initial implementation in secondary schools.

Therefore a recommendation of this thesis is that areas within column 2 (Table7.4) be examined and used to identify areas that need to be improved to allow the continued construction of the bridge crossing the river.

Returning to the original research questions supports this recommendation;

- What is the difference between the old Home Economics syllabus and the new Food and Textile Technology Curriculum Statement?
- How are teachers dealing with the new Food and Textile Technology Curriculum Statement?
- What are the teacher training implications of the new Food and Textile Technology Curriculum in Samoa?

Chapters 4-6 of this thesis outline the major differences between the two curriculum documents as revealed by the document analysis. It was also shown that teachers are using the new curriculum document as they used the old curriculum, little has changed in regard to their perspectives on teaching and learning. These underlying aspects are critical to the development of the teacher. The teachers own teaching philosophy and teaching practice and in turn have a considerable impact on their development and education. As recommended the structure bridging the gap separating the new curriculum and the teachers in Samoa would best be structured from a blueprint as Column 2 outlines in Table 7.4.

7.4 Sina

> "It is hard to see how teaching can become a more vigorous learning profession unless teachers together take (and are allowed to take) more control over their own learning agenda."
> (Hargreaves & Fullan, 1998:84)

Teachers have a powerful influence on the implementation of a new curriculum as shown in this thesis and illustrated in the current research literature (McGee, 1997). Sina's story illustrates the anxieties and concerns of the teachers profiled in this study. In addition to the everyday worries Sina faces, she also has to cope with the implementation of a curriculum that requires her not only to change her behaviour (teaching style) but also to modify her personal conceptions of teaching and learning that she has held for a long time (Hopkins, 2001).

The bridge that needs to be built to link the new curriculum with the teachers reality and perspectives were based on Sina learning not only new practical skills but also learning to examining her own educational teaching and learning beliefs, in three major areas;

Chapter 4—Learning about the philosophy of Food and Textile Technology and its underlying learning concepts

Chapter 5—Learning about the use of curriculum and the constructivist teaching and learning approach.

Chapter 6—Learning to make wise decisions and being a good leader.

Sina is not expected to build the bridge without assistance. In the widest sense other educators such as principals, government

workers, also have a role to play in the construction of the bridge. These aspects can be seen as the roof covering the walkway of the bridge. The roof shelters the teachers as they cross the bridge, even more important if the teacher takes longer to cross than others they are sheltered from the elements as they continue across the bridge. Teacher educators also have a key role to play in the building of the bridge, and in fact they themselves may have to build their own bridges to bridge the gap.

To aid the teacher in constructing and using the bridge, and to improve teacher development programmes identified within the change paradigm seen as the best for Samoa (column 2, Table 7.4), principles of action are outlined (Table 7.5). These principles of action complement both the elements of column 2, Table 7.4 as well as Collins's (1997) critical challenges and are used to inform teachers, teacher educators, and other education sector workers.

Table 7.5 Principles of Action

1.	Learning the new curriculum must be in context
2.	Participants (teachers) must reflect on their own practice
3.	Perspectives of participants (teachers) are identified and acknowledged
4.	Use of inquiry orientation: "inquiry into the social condition with the aim to improve it" (Wideen et al., 2002:120)
5.	Emphasis should be on the local situation and avoiding templates
6.	Development planning works better than linear planning
7.	Participants practice will change before their beliefs
8.	Conflict and anxiety are natural part of the change process,
Developed from Hargreaves, 1994; Fullan, 1999; Wideen et al., 2002.	

Using the Collins (1997) challenges and the principles of action, Sina together with teacher educators should be able to construct their bridge to cross the river and link their teaching and learning with the new Food and Textile Technology curriculum.

7.5 Conclusion

> "The involvement of teachers in educational change is vital to its success. Teachers are not just technical learners, they are social learners too, drawing our attention not just to their *capacity* to change but also their *desire* to change."
> (Hargreaves, 1994:10)

This study collected data in relation to teacher's perspectives as well as ascertain the differences between the Home Economics syllabus and the Food and Textile Technology curriculum documents. It found that there was a gap between the teachers perspectives and the Food and Textile Technology curriculum. This gap was represented as a river, the gap further identified as the community and their expectations of the education system. The bridge crossing the river is the change process, it is based on the three main conceptual differences discovered between the old and new documents and the teachers perspectives

1. Epistemological
2. Pedagogical
3. Teacher decision making

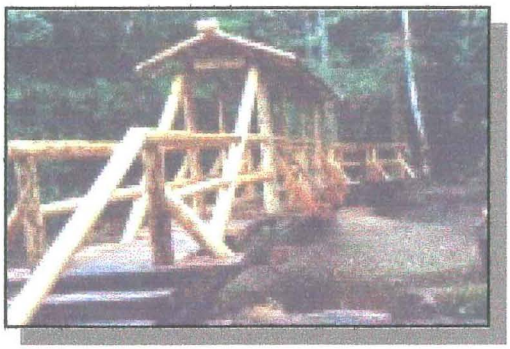
A framework in Table 7.4 was developed to illustrate the different methodologies available to build the bridge and how the different elements are linked. The framework is a guide to bridge design, assembly method and who the engineers/builders will be.

This chapter suggests that column 2 (Table 7.4) is the best model for curriculum implementation for Food and Textile Technology in Samoa. This method is the rational-empirical approach to change, which uses both 'expert' engineers and teachers to build the bridge. Evidence shows that teachers need to have a say in the construction of the bridge (the change process) otherwise they will not make use of the bridge (Hargreaves, 1994).

Sina is coping with the new curriculum in the best way she can, she is following practices she has used for many years and doesn't see the need to cross to the other side of the river. In this regard it is the role of the teacher educators to begin the bridge construction and assemble the structure of the bridge. This is achieved by carrying out research on the perspectives and practise of classroom teachers. This is vital to the building of the bridge.

Teachers cannot be expected to bridge the gap and cross the river unassisted and it is the responsibility of the teacher educator to assemble the bridge blueprint. The results of this study highlight the need for teacher educators and the curriculum implementers to begin to build their own bridges and organise professional development programmes to support the change required for the successful implementation of the Food and Textile Technology curriculum.

Picture 7.1 The Bridge



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Appendix

Appendix 1. Survey questionnaire

Appendix 2. Academic and ethic approval letters

Appendix 3. Letter to Director of Education

Appendix 4. Letter from Director of Education

Appendix 5. Letter to Principals

Appendix 6. Letter to Home Economics teachers

Appendix 7. Data from document analysis

Appendix 8. Interview schedules

Appendix 9. Copy of teacher consent form

Appendix 1

Survey Questionnaire

Questionnaire for Home Economics in School

Name: [redacted]
School: [redacted]

Age:
Sex:
Status: Principal/Teacher

T-5-16

1. Do you like teaching/learning Home Economics?
   (Yes) No Not sure
2. How long have you been teaching Home Economics?
   (0–5 yrs) (5–10 yrs) more than 10 yrs
3. Is Home Economics your only major subject?
   Yes (No)

   If your answer is No, what is/are your other subject/s?
   ENGLISH.

4. What class level do you teach this year?
   (Y–9) (Y–10) (Y–11) (Y–12) Y–13
5. How long is one teaching period?
   30–40 mins. (40–50 mins) 50–90 mins.
   more than 90 mins.
6. How many hours a week do you spend in Home Economics?
   1 hr. 1.5 hrs. (2 hrs.) more than 2 hrs.
7. How many hours a week do you spend for preparation?
   1 hr. 2 hrs. 3 hrs. (more than 3 hrs.)
8. Is there a special room for Home Economics in your school?
   Yes (No)

   If your answer is No, why?
   There are only 9 rooms but we had 8 classes and the other room is used as a laboratory.

9. What is covered in your Home Economics syllabus or carriculum?
   A) Food & Nutrition B) Textiles & Sewing
   (C) Both A & B D) Others

10. What equipments are available for

A) Food & Nuturition?

List as many as you can

. nothing.

B) Textiles & sewing?

List as many as you can

1. Sewing machine.
- unpicker. - needle.
- scissors. - tape measure
- threads - thimple.

11. Do you think your eating patterns and traditional meals are the same as what it was years ago?

Yes (No)

If you say No, explain how it has been changed including types of foods used.

In now-a-day most people work in offices so there is no time to work in gardens, they only depends on processed food like, rice, bread, canned food, knuttons turkey tails ect.

12. What equipments do you wish to have for teaching

A) Food & Nutrition?

List what you think convenience.

Oven / stove
utensil (egg) pots, fry pan
Why? knife, plate, measuring spoon and cups.
for practical. bowls etc.

B) Textiles & sewing?

List what you think convemience.

not enough sewing machines for practical
- more sewing machine
Why? - fabric
- fabric paint.

13. What other resources are available for

A) Food & Nuturition?

List: More text about food and Nutrition.

B) Textiles & Sewing?

List: - dye painting
- sewing machine

14. Do you encounter any problems in teaching this subject?

(Yes) No

If your answer is Yes, explain:
We need to have more workshop on this subject and practicals.

15. Do you have any practical session for

A) Food & Nuturition? (Yes) No

If you do, what kinds of things do you do or make ?

~~Cha~~ - jam making
- Pacific island stew.
- Baking - banana cake.

B) Textiles & Sewing? Yes No

If you do, what kinds of things do you do or make?

- Short
- Top of a puletasi.

16. What would be some recomendations that you could suggest for future improvement of Home Economics in your school?

It should be a special room for Home Economics and has enough resources.

17. Is Home Economics an important subject to study these days?

(Yes) No

Why do you think so?

Not all the students get job but if they stay homes they can develop their families by cook food ~~one~~ and sew for the member of their family and village and they get pay.

18. Is it necessry for girls to learn Home Economics in schools?

(Yes) No.

Why do you think so?

Cooking and sewing those are girls or ladies domestic works it helps a lot for the families and their children in future if they get marrie

Is it necessary for boys to learn Home Economics in schoola?

(Yes) No

Why do you think so?

If there's no girl in a family they can help their mothers in cooking or sewing

19. Do you recommend students to continue to learn Home Economics in next year?

(Yes) No

Why do you think so?

For future.

20. Will you want to learn Home Economics if you were 17 years old?

Yes No

Why do you think so?

Thank You for your Assistance

Appendix 2

Academic and Ethnic Approval Letters

125th Jubilee 25-27 October 2002

CHRISTCHURCH COLLEGE of EDUCATION

Te Whare Whai Matauraka Ki Otautahi

20 May, 2002

Susan Faoagali
9 Tauiwi Crescent
Christchurch 8002

Dear Susan

Re: Academic Approval for Research Proposal TL804

The MTchLn Academic Standards Committee has considered your application for approval for your research proposal. I am pleased to advise you that approval has been given and minuted on 20 May 2002. We are still awaiting Ethical approval as the meeting has not yet taken place.

Your proposal was reviewed by 2 members of the Christchurch College of Education staff. Their comments are enclosed, and copies of their brief reports sent to your supervisors. We encourage you to discuss these comments with your supervisors.

Best wishes for your research

Carol Mutch

Carol Mutch
Coordinator MTchLn Centre

cc Fiona Haynes
Tili Afamasaga

Dovedale Avenue, Ilam, PO Box 31-065
Christchurch 8030, New Zealand
Telephone (64) (3) 348 2059, Facsimile (64) (3) 348 4311
http://www.cce.ac.nz

125th Jubilee 25-27 October 2002

CHRISTCHURCH COLLEGE of EDUCATION

Te Whare Whai Matauraka Ki Otautahi

6 June 2002

Susan Faoagali
School of Professional Development
Christchurch College of Education
Christchurch

Dear Susan

Your application for the project "The new Food and Textile Technology Curriculum for Samoa: the implications for teacher training" has been granted approval by the Ethical Clearance Committee.

You are required to reapply for clearance/approval should circumstances relevant to this current application change.

Yours sincerely

R. Tow

Regina Townshend
Executive Officer – Research
Associate Principal's Office
Christchurch College of Education

Cc Dr Janinka Greenwood
Lorraine McKeown
Fiona Haynes

Dovedale Avenue, Ilam, PO Box 31-065
Christchurch 8030, New Zealand
Telephone (64) (3) 348 2059, Facsimile (64) (3) 348 4311
http://www.cce.ac.nz

Appendix 3

Letter to Director of Education

125th Jubilee 25-27 October 2002
CHRISTCHURCH COLLEGE of EDUCATION
Te Whare Whai Matauraka Ki Otautahi
DISCE UT DOCEAS

COPY

Levaopolo Tupae Esera
Director of Education
Education Department
Samoa

31 July 2002

Re: Carrying out research in Secondary Schools in Samoa.

Project Title: The new Food and Textile Technology Curriculum for Samoa: the implications for teacher training.

Dear Levaopolo Tupae Esera,

I would like to ask your permission to approach the Principals of five Junior Secondary Schools to attain entry to their school to allow me to carry out interviews with Home Economics/ Food and Textile Technology teachers. I am investigating the teacher training implications of the new Food and Textile Technology Curriculum by examining the document, the current teacher training programme and interviewing Food and Textile Technology teachers and teacher trainees.

I am currently a lecturer at the National University of Samoa, and this study is part of a Master of Teaching and Learning Degree through the Christchurch College of Education, and I am working under the supervision of Gatoloaifaaana Tili Afamasaga, Faculty of Education Dean at National University of Samoa, and Fiona Haynes, senior technology lecturer at Christchurch College of Education.

Data resulting from the interviews will be coded by symbols to avoid identification of any individual or school, in this way anonymity will be preserved. All papers and tapes connected to the study will be kept secure and only my supervisors and I will have access to data collected. All data will be kept for at least five years as prescribed by the Christchurch College of Education regulations. Information will not be used for any other purpose than to complete my Masters' thesis.

It is anticipated that data collected will contribute to improving the preparation of Food and Textile Technology teachers, by increasing their confidence and skills in working with the new curriculum statement.

Once I obtain your permission I would like to inform the Principals of the five teachers I have chosen to interview, I have enclosed these letters to each Principal with this letter and respectfully ask if your department can deliver them to the schools.

Dovedale Avenue, Ilam, PO Box 31-065
Christchurch 8030, New Zealand
Telephone (64) (3) 348 2059, Facsimile (64) (3) 348 4311
http://www.cce.ac.nz

affiliated with
GRIFFITH UNIVERSITY
AUSTRALIA

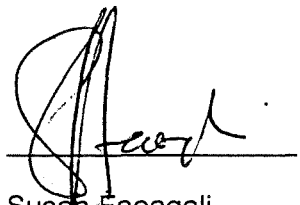
I can be contacted at the National University of Samoa, phone 20072 ext. 130 or 204 or mail sfaoagali@excite.com Please do not hesitate to contact me if there are further enquires regarding this letter.

The Christchurch College of Education requires that all participants be informed that if they have any complaint concerning the manner in which a research project was conducted, it may be given to the researcher, or, if an independent person is preferred, to:

The Secretary
Ethical Clearance Committee
Christchurch College of Education
POBox 31 065
Christchurch 8030
Telephone: (64 3) 343 7707
Fax: (64 3) 343 7789

Thankyou for your time.

Faafetai tele lava



Susan Faoagali

Appendix 4

Letter from Director of Education

GOVERNMENT OF SAMOA
DEPARTMENT OF EDUCATION

PO Box 1869, Apia, SAMOA Telephone (0685) 21 911 Facsimile (0685) 21917 Email Address: samoadoe@lesamoa.net

Please address all correspondence to the Director of Education

COPY

7th August, 2002

Ms Susan Faoagali
FOE / NUS
LE PAPAIGALAGALA
VAIVASE

re: **YOURS OF 31 JULY, 2002**

RESEARCH IN FOOD AND TEXTILE TECHNOLOGY
[redacted]

Thank you for your request.

No doubt your research will contribute to better training programmes for our teachers and trainees.

Please make an appointment with the Principals and organise a suitable time for your work.

Fa'afetai,

Levaopolo Tupae Esera
DIRECTOR OF EDUCATION

cc : Principals: [redacted]

Appendix 5

Letter to Principals

COPY

[redacted]

Principal

[redacted]

31 July 2002

Dear [redacted]

Project Title: The new Food and Textile Technology Curriculum for Samoa: the implications for teacher training.

I am a lecturer at the National University of Samoa, and am investigating the teacher training implications of the new Food and Textile Technology Curriculum. I would like to ask your permission to interview your Home Economics/ Food and Textile Technology teacher on their perceptions in regard to the new Technology Curriculum.

I am working under the supervision of Gatoloaifaaana Tili Afamasaga, Faculty of Education Dean at National University of Samoa, and Fiona Haynes, senior technology lecturer at Christchurch College of Education, towards a Master of Teaching and Learning at the Christchurch College of Education.

The interview will be approximately 1 hour long, I will arrange a time convenient to the teacher and the school for the interview. I will be discussing with the teacher their training needs in implementing their school programmes in the context of the new Food and Textile Technology curriculum statement.

Data resulting from the interviews will be coded by symbols to avoid identification of any individual or school, in this way anonymity will be preserved. All papers and tapes connected to the study will be kept secure and only my supervisors and I will have access to this data. All material will be kept for at least five years as prescribed by the Christchurch College of Education regulations. Information will not be used for any other purpose than to complete my Masters' thesis.

I have first requested permission from the Director of Education. After obtaining permission from you the Principal I will then ask the teacher to give their own written permission and have enclosed a letter for the teacher in regard to my request.

I respectfully ask if you can pass the enclosed letter to the Home Economics teacher for her to decide if she gives permission for me to interview her. The letter asks her to sign the form and to fill two dates and time that is convenient for her and your school for me to visit the school for the interview, and I will choose one time to come to your school. If the letter could be returned to me at the National University of Samoa, I will then travel to your school for the interview.

I can be contacted at the National University of Samoa, phone 20072 ext. 130. Please do not hesitate to contact me if there are further enquires regarding my request.

Dovedale Avenue, Ilam, PO Box 31-065
Christchurch 8030, New Zealand
Telephone (64) (3) 348 2059, Facsimile (64) (3) 348 4311
http://www.cce.ac.nz

It is anticipated that data collected will contribute to improving the preparation of Food and Textile Technology teachers, by increasing their confidence and skills in working with the new curriculum statement.

I look forward to working with you.

The Christchurch College of Education requires that all participants be informed that if they have any complaint concerning the manner in which a research project was conducted, it may be given to the researcher, or, if an independent person is preferred, to:

The Secretary
Ethical Clearance Committee
Christchurch College of Education
POBox 31 065
Christchurch 8030
Telephone: (64 3) 343 7707
Fax: (64 3) 343 7789

Thankyou for your time.

Faafetai tele lava,

Susan Faoagali

Appendix 6

Letter to Home Economics/ Food and Textile Technology Teachers

125th Jubilee 25-27 October 2002

CHRISTCHURCH COLLEGE of EDUCATION

Te Whare Whai Matauraka Ki Otautahi

COPY

[redacted]
Home Economics Teacher
[redacted]

30 July 2002

Dear [redacted]

Project Title: The new Food and Textile Technology Curriculum for Samoa: the implications for teacher training.

I am a lecturer at the National University of Samoa and am investigating the teacher training implications of this new Food and Textile Technology Curriculum. This is part of study for the Master of Teaching and Learning at the Christchurch College of Education, my supervisors are Gatoloaifaaana Tili Afamasaga, Faculty of Education Dean at National University of Samoa, and Fiona Haynes, senior technology lecturer at Christchurch College of Education.

I would like to interview you in regard to your experience as a Food and Textile Technology (Home Economics) teacher. This interview will take approximately 1 hour and will be recorded on audiotape. By investigating what your needs are as a Food and Textile Technology school teachers, the National University of Samoa will have data on which it can develop improvements to their teacher trainee programme.

Information from the interview will be coded by symbols to avoid identification so that individuals or schools can not be identified. All papers and tapes connected to the study will be kept secure and only my supervisors and I will have access to it.

I plan to travel to your school during school time or straight after school to interview you, I have asked the Department of Education and your principal for permission. If you agree to be interviewed please sign the form below, and write down a time and date that you are available for me to come to your school. Then if you can send the form back to me at the National University of Samoa.

Please contact me if there are further enquires or questions regarding my request. I can be contacted at the National University of Samoa, phone 20072 ext. 130.

I look forward to working with you

The Christchurch College of Education requires that all participants be informed that if they have any complaint concerning the manner in which a research project was conducted, it may be given to the researcher, or, if an independent person is preferred, to:

The Secretary
Ethical Clearance Committee
Christchurch College of Education
POBox 31 065
Christchurch 8030
Telephone: (64 3) 343 7707

Thankyou for your time.

Faafetai tele lava

Susan Faoagali

Dovedale Avenue, Ilam, PO Box 31-065
Christchurch 8030, New Zealand
Telephone (64) (3) 348 2059, Facsimile (64) (3) 348 4311
http://www.cce.ac.nz

Appendix 7

Data from Document Analysis

Raw Data Tables by Document

- 1980 Home Economics Syllabus
- 2000 Food and Textile Technology Curriculum
- 2001 Food and Nutrition Year 9 Student Book

1980 Home Economics

Technical	**1980 Home Economics Technical theme Overall** A4 pages, stapled down side. 182 pages. Pink cardboard cover and back	**1980 Home Economics Technical theme Title page** Pink cardboard with photocopy of a picture of food	**1980 Home Economics Technical theme Font/ Formatting** Different font type and size used through out book. Bold, caps and underlining were used for emphasis, subheadings not used with consistent formatting. Looked like a cut and paste job, with the different people who wrote each section	**1980 Home Economics Technical themes Pictures/diagrams** Diagrams were used. For example diagrams of patterns, stitches, types of seams, measuring equipment, local foods and cooking methods. There were also a few photos used such as a fale, a women with a dress on. Flow diagrams depicting process. Several word finds and crosswords.
Language	**1980 Year 9 Home Economics Syllabus Language themes Vocabulary** Simple words and vocabulary used, ie; instructions for teachers, instructions for students. Bullet point content Objectives use words such as identify, know when, sew, use, maintain and use, choose, explain, list, state, select, plan , prepare and serve, analysis, understand, classify, organize	**1980 Home Economics Language theme Concepts and Underlying ideologies** Learning is achieved by reading content, do activities, fill in quiz, copy into book. Transfer of knowledge from the teacher/text to the student. Passive learning	**1980 Year 9 Home Economics Syllabus Language theme Relevant to Samoa** Many references to Samoa and way of life in Samoa, including tropical foods and housing. Five instances of Samoan language; • Pg 28 three food groups • Pg 91 Smell words (descriptive) • Pg 106 foods good for breakfast • Pg. 108 foods good for lunch Pg. Foods good for dinner	**1980 Year 9 Home Economics Syllabus Language themes Assumptions** That all students have a knowledge of English,

Raw Data Tables

Philosophical	1980 Home Economics Philosophical theme Aim/ purpose of document	1980 Home Economics Philosophical theme View of teaching and learning	1980 Home Economics Philosophical theme View of Home Economics as a subject	1980 Home Economics Philosophical themes Translation of aims into practice	1980 Home Economics Philosophical theme Assumptions
	The general aims of the document are not explicit or written anywhere. However, from a thorough analysis of the document and discussion with curriculum developers from the Department of Education the following conclusions have been made. To give the students content knowledge together with learning activities. To give teachers guidance with the subject in both content and student activities. Books to be used as a class set, students to write in their own exercise books	Transfer of knowledge from the teacher to the student. Teacher centered teaching where the child was an empty vessel and the teacher and school is to fill it with knowledge. Positivist view. Knowledge is seen as a information Assessment mainly written recall, answer questions. No evaluation of textile practical lessons	Preparing girls for wife-hood, consistent with the view of Home Economics in the 1980's. That is food and nutrition (cooking), clothing (sewing and laundry), home management (organising and keeping house clean Population studies (health and family topics). Little assessment. Stereo typed gender roles.	The general aims of the document are not explicit. The purpose and aims stated above will be discussed. The aim was to give students content; there were no other resources in schools at the time. This document has achieved this aim, it does give content. Other aim is to assist teachers, give instructions. This aim also achieved. Aims as written in the book include; explain, understand effects, plan, prepare and serve. These were translated into practice with activities such as; read content, list, mix and match, list own foods, fill in chart, written questions, discuss, research, evaluation chart for practical.	That the teachers are working from a positivist view of teaching and learning. Transfer of knowledge. Chalk 'n Talk is the major teaching technique. Teachers need to have lesson objectives and lesson plans written for them within the syllabus book.

Raw Data Tables

Content	1980 Home Economics Content theme Structure	1980 Home Economics Content theme Strands/units	1980 Home Economics Content theme Subheadings/specific aims	1980 Home Economics Content theme Assumptions
	No introduction, no table of contents. Each unit is numbered, but the numbers do not seem to have a logical order, is a bit confusing e.g. same unit numbers are used. Thought that maybe the numbers related to the term but no way to be sure. Each unit of work has the subheadings • Objective (specific) • Teaching aids • Content • Activities • Questions • Quiz (some units)	Clothing Textiles Food and Nutrition Home Management Population Special Topic	Clothing Textiles • Basic sewing equipment • Stitches • Taking measurements • Patterns and instructions for skirt, pillowcase and apron Food and Nutrition • Kitchen equipment • Three food groups • Methods of cooking • Selecting and buying food • Balanced meals • Recipe reading • Dish washing Home Management • Families • Family resources • Home • Available resources for the family Population • Health and hygiene • Menstruation • First aid • Health and nutrition Special Topic 7. Food and nutrition at the individual and family level 8. No topic (content is balanced diet) 9. Population, family size and food resources 10. No topic (content is improving health) 11. Common diseases of the Pacific countries 12. Population factors and common diseases in the Pacific.	That schools have workshop classroom with equipment for teaching practical lessons in foods and textiles (embedded in subject). Quite a few practical lessons included; such as breakfast, lunch and dinner. Prescription style document is what is expected by teachers. Students learn by reading, and answering questions. Transfer of knowledge

Raw Data Tables

2000 Food and Textile Technology Curriculum Statement

Technical	**2000 Food and Textile Technology Curriculum Statement** **Technical theme Overall** Book with A3 pages stapled in the center, 60 pages Easy to read, looks nice, looks professional	**2000 Food and Textile Technology Curriculum Statement** **Technical theme Title page** Glossy, colour, pink with siapo (tapa) design	**2000 Food and Textile Technology Curriculum Statement** **Technical theme Font/ Formatting** Font size and formatting consistent through out book. Headings and subheadings emphasized with bold, caps and shaded background. Footers used on each page. Extra large numbers in grey were used for year levels. Whole title page used to separate sections. Specific aims in box with shading. Numbering and bullets used through out book. Each achievement objective has the first word in bold to emphasize the verb or doing word of the objective.	**2000 Food and Textile Technology Curriculum Statement** **Technical themes Pictures/diagrams** Flow chart used for structure of curriculum. Tables used to compare information. Table also used to set out each strand, with major headings, aims, and main achievement objectives with shaded background. Achievement objectives by strand in landscape format and achievement objectives by year level displayed in portrait format.
Language	**2000 Food and Textile Technology Curriculum Statement** **Language themes Vocabulary** Higher vocabulary More complicated, many new terms for the teachers Glossary at the end Language for teachers not for students	**2000 Food and Textile Technology Curriculum Statement** **Language theme Concepts and Underlying ideologies** New structure, language and concepts for teachers to learn. Explicitly states link between language and learning. Language as a specific strand—Communication Knowledge is	**2000 Food and Textile Technology Curriculum Statement** **Language theme Relevant to Samoa** Many references to Samoa and way of life in Samoa, including tropical foods and housing. Six incidence of Samoan language; • Pg 13 example of preserved Food • Pg 18 & 19 specific aim using 'soifua maloloina' • Pg 24 example of a Samoan plant • Pg 25 names of household items • Pg 27 values of alofa, faaaloalo, tautua	**2000 Food and Textile Technology Curriculum Statement** **Language themes Assumptions** Teachers have knowledge of English. Teachers understand the meaning of Achievement objective (not in the glossary) Once they understand the meaning of the new words they will know how to apply them e.g. compare and contrast. Teachers understand the new concepts and how to use them in their planning and teaching. Or know the difference between transfer of knowledge philosophy and knowledge as an exchange of ideas

Raw Data Tables

2000 Food and Textile Technology Curriculum Statement Continued

Philosophical	**2000 Food and Textile Technology Curriculum Statement** **Philosophical theme** **Aim/ purpose of document** To replace the old Home Economics Syllabus books currently being used in schools. And is in line with the Samoan Secondary School Curriculum Overview Document (1998) and the major project being undertaken to up-date all secondary school subjects. The aim of the Food and Textile Technology Curriculum Statement is explicit: (to) "provide a basis for teachers to plan programmes for teaching Food and Textile Technology in secondary schools" (pp1).	**2000 Food and Textile Technology Curriculum Statement** **Philosophical theme** **View of teaching and learning** View of teaching and learning is explicit, it is stated very clearly within the first pages of the document (pp5). "Learning is a process by which new understandings are constructed. Students learn best when they take action themselves to generate and create meaning, and to apply the new knowledge in meaningful situations" "use interactive activities such as discussion, investigation and reflection, problem solving, and peer work". Teaching and learning is an exchange of ideas, where students interact with content to gain knowledge. Teachers use aims and achievement objectives to plan their own school programme. Ideas and Samoan examples are given but no specific activities are included.	**2000 Food and Textile Technology Curriculum Statement** **Philosophical theme** **View of Home Economics as a subject** Home Economics renamed and repackaged as 'Technology'. Technology as a subject using 'technological practices', emphasis on the process not the end product, on problem solving and making decisions. Knowledge is constructed, learning is active and interactive. Explicit in its gender issues, page 7 lists four bullet points to "ensure that gender is not an obstacle to learning, success, or individual value."	**2000 Food and Textile Technology Curriculum Statement** **Philosophical theme** **Translation of aims into practice** This document does provide teachers with a basis to plan their individual school programmes (as its purpose stated above). The general aims of Food and Textile Technology as a learning area are explicit and listed on page 3; • Develop knowledge, skill, understanding and creativity in Food and Textiles • Using technological practice to solve everyday problems and enhance soifua maloloina • Give knowledge and skills to make informed decisions • Increase awareness of career opportunites in the areas of food and textiles..	**2000 Food and Textile Technology Curriculum Statement** **Philosophical theme** **Assumptions** Teachers understand what is meant by the new title—'Technology'. That teachers know and understand how to use achievement objectives, that they understand the new concepts of knowledge as an interaction between the student and the information, or what 'student centered' teaching requires of them. That teachers know how to write their own school programmes and units of work. That they know how to integrate subject areas/stands in to units of work.. That they know what is meant by the 'design process'.

Raw Data Tables

2000 Food and Textile Technology Curriculum Statement Continued

Content	2000 Food and Textile Technology Curriculum Statement **Content theme Structure**	2000 Food and Textile Technology Curriculum Statement **Content theme Strands/units**	2000 Food and Textile Technology Curriculum Statement **Content theme Subheadings/specific aims**	2000 Food and Textile Technology Curriculum Statement **Content theme Assumptions**
	First page has list of authors, subject advisor and consultant plus a list of funding donors, and date. Table of contents Document in two sections, the first part consists of specific explanations regarding the structure of the Food and Textile Technology Curriculum aims, the approaches to teaching and learning, and assessment and evaluation. The second section sets out the achievement objectives, these are presented in two different ways first by the strand and second by year level. The document finishes with a two-page glossary of terms. Each strand has an 'Specific Aim', then below each of these aims there are different theme objectives for each year representing a progression up through the year levels. Under each theme objective and each year level the achievement objectives are listed in bullet format.	Food and Nutrition Caring for the Family Consumer Responsibilities Design and Textiles Communication	Food and Nutrition • Food safety • Food nutrition and application • Food budgeting Caring for the Family • Changing nature of families • Effect of lifestyle on family • Responsibilities of family members Consumer Responsibilities • Rights and responsibilities of consumers • Responsibilities of service providers • Resource management Design and Textiles • Fibres and fabric • Techniques and processes Communication • Oral • Written	That schools have workshop class rooms with equipment for teaching practical lessons in foods and textiles areas (embedded in subject). Teachers understand what is meant by the new title—'Technology' Teachers understand how to use achievement objectives and to write them into their own school programmes and units of work. Teachers know how to integrate subject areas. Teachers know what is meant by the 'design process'. That classrooms and pupils have access to libraries and research facilities

2001 Year 9 Food and Nutrition Student Book.

Technical	**Year 9 Food and Nutrition Student Book 1 (2001 Technical theme Overall** Book with A3 pages stapled in the center, 83 pages. Attractive, easy to read, pictures and boxes on every page.	**Year 9 Food and Nutrition Student Book 1 (2001 Technical theme Title page** Cardboard cover, colour but not glossy, with a picture (diagram) of a man serving elders sitting in a fale.	**Year 9 Food and Nutrition Student Book 1 (2001 Technical theme Font/ Formatting** Font size and formatting consistent through out book. Unit headings, subheadings were emphasized using a combination of large italic print, bold, caps, extra large print. Heading boxes were used with and without frames, double and shadows were also used. Shaded boxes were used each page for 'keywords', 'instructions', 'did you know' and 'remember' notes. Numbering and bullets used through out book.	**Year 9 Food and Nutrition Student Book 1 (2001 Technical themes Pictures/diagrams** Pictures and diagrams were used extensively throughout the book of food items and people. A variety arrangements with or without; frames, labels, shading, speech boxes. Tables used. Flow charts used. Shadow pictures used. Photos of real fruit included. Bar graph used. A few word-finds included.
Language	**Year 9 Food and Nutrition Student Book 1 (2001) Language themes Vocabulary** Simple words and grammar since the target is year 9 students. Glossary at the end Instructions are easy to read. Content information in simple language and usually in note bullet format. Questions are asked throughout text e.g. page 12 'so how does this make it a dangerous practice?'	**Year 9 Food and Nutrition Student Book 1 (2001) Language theme Concepts and Underlying ideologies** 'Key word' boxes used. Teachers use books to supplement their teaching programmes, which are linked to the curriculum statement achievement objectives. No quiz or recall questions, the activities are application, information gathering and solving problems e.g. explain what could've caused the food poisoning, reasons for rules.	**Year 9 Food and Nutrition Student Book 1 (2001) Language theme Relevant to Samoa** Many references to Samoa and way of life in Samoa, including tropical foods and housing. Some instances of Samoan language; • Pg 14 Eleni (in brackets) • Pg 22 Poem in Samoan • Pg 25 Samoan word for preserved • Pg 26 Umu, mailo, laulau • Pg 33 Afato • Pg 35-37 food names Pg 67-75 food names	**Year 9 Food and Nutrition Student Book 1 (2001) Language themes Assumptions** That all students have a knowledge of English.

Raw Data Tables

Year 9 Food and Nutrition Student Book 1 (2001) continued

Philosophical	**Year 9 Food and Nutrition Student Book 1 (2001) Philosophical theme Aim/ purpose of document** Explicit. Pp5 "has been designed to give (the student) information and an understanding of different subjects related to Food and Nutrition.... To take you on a journey of facts and information that (students) can use to make changes and more informed choices about the food they choose to eat." To give the year 9 student content material together with activities for one strand—Food and Nutrition. To assist the teacher with ideas for learning activities, content knowledge and recipes.	**Year 9 Food and Nutrition Student Book 1 (2001) Philosophical theme View of teaching and learning** As an addition to the new curriculum statement, the view of teaching is the same as noted in the curriculum document. Building on knowledge, application of knowledge, problem solving, using the design process.	**Year 9 Food and Nutrition Student Book 1 (2001) Philosophical theme View of Home Economics as a subject** Food and nutrition is for everyone, not just girls. Text is non-gender specific, pictures include females and males. Covers up-to-date and relevant information for the young person, that is; food safety, food for health and food budgeting. To allow the young person to make informed decisions in regard to the food they eat. Emphasis is on active learning, knowledge is constructed. Students are active in applying knowledge, solving problems and using resources outside the classroom.	**Year 9 Food and Nutrition Student Book 1 (2001) Philosophical theme Translation of aims into practice** This document does provide pupils and teachers with information and activities (as its purpose stated above). Activities reinforce the concept of interactive learning e.g. research, visits, applying, finding reasons.	**Year 9 Food and Nutrition Student Book 1 (2001) Philosophical theme Assumptions** It is not explicit but there is an expectation that the teacher will integrate the units in the book within their own programmes. It is not to be used as a textbook to begin at the beginning and go through in order from beginning to the end. Not explicit, but there are links with the book to the achievement objectives in the curriculum statement.

Raw Data Tables

Year 9 Food and Nutrition Student Book 1 (2001) continued

Content	**Year 9 Food and Nutrition Student Book 1 (2001) Content theme Structure**	**Year 9 Food and Nutrition Student Book 1 (2001) Content theme Strands/units**	**Year 9 Food and Nutrition Student Book 1 (2001) Content theme Subheadings/specific aims**	**Year 9 Food and Nutrition Student Book 1 (2001) Content theme Assumptions**
	Acknowledgements (subject committee and writers) Table of contents Introduction Three units, each unit has Subheadings each with; • activities, • key words, • 'Did you know?' and 'remember' boxes. Three page glossary at the end	Keeping Food Safe Eating for Health Food budgeting	Keeping Food Safe • Safe food pracitces • How can you make sue food is kept safe? • Storing food safely • Shelf foods • Washing-up hygienically • Cleaning tin-ware • Food spoilage • How do moulds and yeast grow? • Traditional ways of food preservation • Preservation • Traditional ways of keeping food safe • Sami lolo or fermented coconut sauce Eating for Health • Food availability • Three food groups • Energy • Fruits and vegetables • Food nutrients • Selecting food for maximum nutrition • Preparing food to conserve nutrients • Rules when preparing food • Practical activities • Terms used in food preparation • Recipes • Creaming, dough, pizza, melt and mix • Cooking food Food budgeting • Healthy food is not necessarily expensive food • Convenience foods • Exploring economic ways of obtaining food • Processed food Snacks—Noodles	That schools have workshop class rooms with equipment for teaching practical lessons in foods and textiles (embedded in subject). For each activity there is a list of 'materials needed', to allow preparation for the activity, such as; pen, workbook, transport, video, practical equipment No aims and objectives, No lesson plans. It is not explicit but there is an expectation that the teacher will integrate the units in the book within their own programmes not to be used as a textbook to begin at the beginning and go through in order to the end

Appendix 8

Interview Schedules

Interview Schedule for Home Economics Teacher

Introduction and Background

Go over introduction letter, consent form and reasons for interview.
Demographics

How many years have you been teaching?
Where did you train?
Where have you been teaching, other subjects that you teach?

Own Practice

What do you teach in Home Economics now?
How is your programme organised?

Training

Did you find your teacher training helpful?
Can you give an example of something that you use in your teaching now?
Can you give an example of something that you don't use in your teaching?
If you went back to training now, what would you want to learn about?

Technology Curriculum

Do you think you can use the new curriculum in your school programme?
Will you change things in your programme now?
What changes would you make?
Are you confident with the new curriculum?
What do you need to be able to use the new curriculum?
Do you have any concerns about this new curriculum?

Finish off, and ask if any other things they would like to say.

Prompting

Can you give me another example?
Does that happen all the time?
How does this compare with your experience elsewhere?
Really?
Go on?
No way?
Tell me more?
I never know that?
I don't understand?
Could you elaborate or be more specific?
When? How?

Interview Schedule for Home Economics Teacher Version 2

Introduction and Background

Go over introduction letter, consent form and reasons for interview.
Demographics

How many years have you been teaching?
Where did you train?
Where have you been teaching, other subjects that you teach?

Own Practice

How is your programme organised?
How is the school programme organised?
In your opinion what makes a good teacher?
Why did you choose to be a teacher?

Training

Did you find your teacher training helpful? Did it prepare you for your teaching career?
Tell me about your teacher training experience?
Can you give an example of something that you use in your teaching now?
Can you give an example of something that you don't use in your teaching?
What differences to you see in the teachers trained now compared to when you first graduated?
If you went back to training now, what would you want to learn about?

Technology Curriculum

Tell me what you think of Home Economics as a school subject

What do you think of the new name technology; does it mean anything different to Home Economics?

Do you think you can use the new curriculum in your school programme?
Will you change things in your programme now?
What changes would you make?
Are you confident with the new curriculum?
What do you need to be able to use the new curriculum?
Do you have any concerns about this new curriculum?

Finish off, and ask if any other things they would like to say.

Interview Schedule for Home Economics Teacher Version 3

For new teacher/participant

Introduction

Demographics

How many years have you been teaching?

Where did you train?

Where have you been teaching, other subjects that you teach?

What is your qualification?

Home Economics/Technology

How is your programme organised?

How is the school programme organised?

Discuss what you think of Home Economics as a school subject

What do others think of the subject, teachers, principal and students?

What do you think of the new name technology, does it mean anything different to Home Economics?

What do you think is the most important thing in Home Economics, what do you like about the old curriculum and the new?

If you could make changes to the new curriculum what would you do?

Do you think you can use the new curriculum in your school programme?

Will you change things in your programme now?

What changes would you make?

What are the barriers to making any changes in your practice or planning?

In your opinion what makes a good teacher?

Why did you choose to be a teacher?

Are you confident with the new curriculum?

What do you need to be able to use the new curriculum?

Do you have any concerns about this new curriculum?

Appendix 9

Copy of Teacher Consent Form

Consent Form to Participate In an Interview with Susan Faoagali

Name:_____School_____

I understand that any answers I give will remain anonymous and confidential. I understand that may withdraw at any time and the information I have provided will not be used.

Signed _____Date:_____

Please write one or two times when is the best time for Susan to come to your school and interview you.

Date and time: _____

Date and time: _____

Faafetai tele lava

Please deliver this form back to the National University of Samoa, PO Box 5768, Apia. LePapaigalagala Campus, Vaivase.